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ABSTRACT

The Statewide Course Numbering System (SCNS), a program in the Florida Department of Education, is evaluated. The introduction of the study includes analysis of complaints, old and new surveys, and evaluation concepts underlying the study. Chapter 2 describes the operation of SCNS, its organizational characteristics in the educational establishment of the state capital, and its ties to the 37 public postsecondary institutions in Florida. Major challenges to the existence of SCNS over several years as well as state legislature support are reviewed in chapter 3, which also presents a conceptual framework applicable for analyzing some of the variables that keep SCNS in an unstable relationship with portions of the postsecondary community. Chapter 4 is divided into two parts: the short, medium, and long-range SCNS goals, and outputs of SCNS. The latter are of two types: (1) any statewide three-letter alpha prefix followed by a four-digit number, of which the last three digits are part of a statewide discipline classification system; and (2) products and services provided by SCNS from its statewide course inventory and other information resources. The question about the extent to which SCNS outputs are being utilized within state agencies and institutions is addressed in chapter 5, followed in chapter 6 with the findings from three sets of surveys. Chapter 7 concludes that, among other things: a flat hierarchy should be maintained between the professional staff and the director to encourage communication; the staff of SCNS needs to observe the statutory requirement that faculty committees are to be used to maintain the System; turnover in the lower clerical positions is a constant drain on potential productivity; and there is an immediate need to revive and revise the SCNS Policy Council. Several appendices are included to provide examples of SCNS policies and products and to explain the procedures of the surveys and other data collection efforts. (Author/LC)

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A POLICY AND PROGRAM EVALUATION OF THE STATEWIDE COURSE NUMBERING SYSTEM

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Preface

Much of the background information for this evaluation project was compiled during the academic years 1974-1976. The writer was then conducting unsponsored research on the organizational history of the SCNS; it was to be material for his doctoral level courses in the organization and administration of higher education, the politics of education and the financing of higher education. Preparation of a case history of SCNS was greatly facilitated by the ready availability of all files and records of SCNS and the director's willingness to take a professor of higher education to state committee meetings and other such happenings. Several faculty discipline task forces allowed the writer to sit through their work sessions. Later, after the writer began conducting contract studies, which were distributed statewide during 1977-1979 as Discipline Analysis Working Papers, he participated in a number of faculty Discipline Conferences sponsored by the SCNS. After three years of this work, a study of the various forms and uses of credit was conducted for SCNS and reported in Surrogate Learning Measures: Credit, Other Units, and Non-Credit (September 1980). All of these experiences prepared the writer for this evaluation study, the latest since he began policy and program evaluations back in 1963-1964.

Many thanks are hereby given to the state and institutional officials who shared their advice and counsel; to institutional liaison officers who talked at length with the writer and completed the usage form; and, to the faculty an chairpersons who cooperated in the survey. Without the openness of these busy people, the aid of Ms. Pamela Allen and the support of most of the SCNS staff, this project would not have been possible.

As fate would have it, this study occurred during a time of tumultuous change at SCNS. The early draft of this report was made available to the new director of SCNS, Dr. Philip Goldhagen. The substantial detail in the report has allowed it to become a guidebook to SCNS. An evaluator could not ask for a better use of his work.

It is apparent that the pace of activity has quickened as new staff have arrived and begun functioning at SCNS. The System again appears to be underway, with morale high, productivity increasing and strategies developed to cope with the chronic need for applications programming skills. Survival, growth and achievement seem to be assured after the departure of the leader who built SCNS, Dr. Michael A. DeCarlo. However, the new director and staff of SCNS are sure to be challenged as they attempt to cope with the results of the recent conversion of 22,000 university courses to semester credits.

By the singular nature of this activity, the principal investigator accepts responsibility for the character and contents of this exhaustive evaluation study report.

J.S.W.
December
1981

CHAPTER I

INTRODUCTION

A. Organization of the Report

This chapter is the first in a report resulting from an evaluation of the Statewide Course Numbering System (SCNS), a program in the Florida Department of Education. Chapter II describes the operation of SCNS, its organizational characteristics in the educational establishment of the state capital and its ties to the 37 public postsecondary institutions around the State.

Chapter III focuses on the major challenges to the existance of SCNS these past several years and the support SCNS has received from the state Legislature. This chapter also presents a conceptual framework which can be used to interpret and analyze some of the variables which seem to keep SCNS in an unstable relationship with portions of the postsecondary community.

The fourth chapter is divided into two parts: the first section lists the short, medium and long range goals of the SCNS; the second section describes the outputs of SCNS. The latter are of two types: the first is any statewide three letter alpha prefix followed by a four digit number, of which the last three digits are part of a statewide discipline classification system. The second type of output includes the products and services provided by SCNS from its statewide course inventory and other information resources.

Chapter V addresses the question about the extent to which SCNS outputs are being utilized within state agencies and institutions. Presented in it is the evidence which indicates that most of the goals of SCNS are being realized at least in part and in some very promising ways. Some contrary evidence is also described and analyzed.

Chapter VI brings together the findings from three sets of surveys. The chapter reports on the perceptions of the institutional liaison officers, faculty (two-thirds of whom are chairpersons and the remainder task force members), and State education policy staff persons from the House, Senate, Department of Education and the Governor's education budget office. Findings are introduced from the earlier chapters to explain some of the anomalies reported here. The chapter also contains a list of concerns, problems and common misunderstandings found by this study. The summary section highlights many of the more important findings from the entire study. Chapter VII draws everything together to reveal the major conclusions and recommendations for the study. Several appendices are included to provide examples of SCNS policies and products and to explain the procedures of the surveys and other data collection efforts.

B. The Study

This study has been conducted as a program evaluation and as the kind of policy analysis most often associated with state government and intergovernmental relations. Its strengths should be found in the thoroughness with which information was gathered; the larger context in which the perennial issues about SCNS have been lodged for analysis; the extent to which several sides of those issues have been presented; the unwillingness to accept reports from respondents without interpreting them; the presentation and analysis of the details of SCNS by someone who knows how the System operates; the exhaustive treatment given to this project by someone who is a 10 year faculty member in Florida and a specialist in both higher education and state government matters; and, finally, the shortcomings identified which should provide several agendas for improvement and further growth and development of SCNS. These strengths would not have been realized without the cooperation of many groups whose very able members were busy persons but who were willing to share their time and expertise.

Suggestions for a statewide evaluation of SCNS have appeared in reports from a few institutional studies of course numbering. One of the last suggestions was submitted by the BOR's academic vice chancellor to the associate deputy commissioner for educational management, Mr. W. Cecil Golden; he oversees the SCNS as an agency in the Department of

Education. Because of this last suggestion, the reviews of six academic programs supervised by the BOR were examined to determine if the procedures could be used as a model for this study. Because the SCNS is not a defined discipline in academia the strengths of the program reviews did not seem applicable. Furthermore, several of these reports, written by out-of-state discipline experts, contained some statements about SCNS which were erroneous and incredible, but were printed as the unqualified truth. This study has avoided that problem.

The suggestion that outside experts ought to be brought in to review the SCNS presents an interesting problem. In a letter of January 24, 1980, from Dr. Eleanore Kenny, an analyst for postsecondary education in the State of Washington, to the then director of SCNS, Dr. Michael A. DeCarlo, she made this comment:

> I recently contacted the articulation and transfer expert, Fred Kinzer, to find out which states had established course numbering systems, regardless of their sophistication. No state but Florida.

This writer confirms her assertion from a study conducted during the summer of 1980. That study was about various forms of credit, accreditation practices and course numbering systems designed to facilitate articulation. As Dr. Kenny said, there is none comparable to that in Florida. Therefore, to hire faculty from outside to evaluate SCNS would have been doubly damning. First, because of their ignorance, and second because faculty are only one party at interest concerning SCNS and course numbering. As explained in Chapter VI, there are at least four groups of persons who have a direct interest in the fate of SCNS. Persons who do not understand this fact do not understand the role of taxpayers (in addition to that of faculty), student fee payers and legislators who appropriate funds and oversee the operations of the public institutions of higher education.

Conceptualizing the roles of the parties at interest over SCNS is not a simple task. The students represent the principal clientele group for whom SCNS was created. They were seen as being both direct and indirect beneficiaries of the System. Transferring without loss of credit, including obtaining credit for the lower division introductory courses to a degree major, which are under the control of the universities, was to be a direct benefit. This focus came from the community college leaders in the state who were very concerned about the willingness of the universities to accept transfer students. The Articulation Agreement between the community colleges and the universities was created to formally solve this problem. What it did was to guarantee students who achieved an A.A. degree in a community college the right to transfer to a university and be certified as having completed all general education requirements.

Some faculty think this arrangement takes care of the problems which students have in transferring credit, but it only opens the door. Many community college students have complained over the years that they were having to repeat courses at the junior or senior level which they had taken as a freshman or sophomore at a local college. Such may be the case in part because the university funding formula still awards more state funds to upper division course enrollments (FTE's) than those in the lower division; many state education staff persons continue to attribute the movement of courses from lower to upper division in the four-year universities as a response to this funding arrangement. Over the years many BOR officials, including the preceding chancellor, denied that this really happened or was happening. However, the recent conversions of courses from the quarter to the semester calendar may have resulted in first digit changes for some courses under this incentive. Discipline task forces of faculty from both community colleges and universities will need to be on the watch for such changes when they review the new course inventories. Should no large break be found in the comparability patterns of common courses between the community colleges and the universities, it will certainly redound to the credit of university faculty and administrators for resisting the temptation of this financial ploy.

The students were thought to be the potential beneficiaries, but in an indirect way. When university faculty and counselors used SCNS materials for analytical purposes. For example, they can be used for curriculum analysis and advising, resulting in the student being able to receive more of the particular kind of program desired; furthermore, the program, it was thought, could be better described and revealed through SCNS taxonomies. Now, as correctly foreseen by the director, there are counseling systems being designed or in operation which are possible because of the structure of common prefixes and numbers in the SCNS inventories.

The BOR chancellor and (then) his top staff, along with the top staff in the Division of Community Colleges, plus the appropriations staff of the Florida House and Senate, originally saw Course Numbering as facilitating the development of better state funding formulae. Later the BOR top leadership changed and so did their active support of SCNS. It is not clear if faculty were expected to be the indirect beneficiaries of the new funding formula system using SCNS type I outputs. There is no evidence they were even thought of in this regard; in fact, if all faculty were expected to benefit uniformly, then it is likely the faculty at the research universities would not be supportive of these uses of SCNS. For example, the faculty and others at the old flagship University (of Florida) actively opposed development of an Articulation Agreement. It was only with the threat of passage of an articulation statute by then

Senator Robert Graham, that the leaders of the BOR staff and the Division of Community Colleges were able to end the protracted negotiations and draft the initial version of the current agreement; it first appeared as a Department of Education Rule (FAC). Incidentally, those who advocated testing community college students wanting to transfer lost their battle; now, of course, it is the State Board of Education which is implementing a sophomore test, which was authorized by the Florida Legislature in 1979.

Initially, the relationship of faculty to SCNS was to have two dimensions: first, all faculty would be users of the new course designators (i.e., standardized prefix and numbers) in the identification of their courses and in the program planning and academic advising of students. Secondly, some faculty from each discipline would have the creative responsibility to conceptualize the structure of knowledge in their discipline and develop a taxonomy for classifying all courses uniformly. The latter meant that all faculty might have to give up control over the course prefix symbols within their department. A similar kind of loss to state authority was clearly perceived by senior faculty in the earlier long negotiations preceding the articulation agreement. Faculty correctly felt that this agreement was foisted upon them by the state. Only the newcomers, the naive and the forgetful members of the faculty are not aware that a large faculty contingent in Florida opposed state actions like articulation and other perceived interventions in the traditional affairs of universities long before SCNS came on the scene.

The advent of SCNS as a formal project of the Department of Education, meaning it was endorsed by the heads of the major divisions, brought with it a new role for faculty. The director of SCNS felt it imperative that faculty specialists from the academic disciplines and programs of study had to be used to equate courses. It was their expertise which would give merit and reliability to the new system. However, many faculty disliked the idea; some who were appointed to discipline task forces bragged in open meetings that they were there to sabotage the System from within. When the Florida statute was being drafted about course numbering, it was written that the maintenance of the System was to be accomplished by faculty committees. Thus, the faculty on task forces were given the opportunity to work actively to make SCNS a success or a failure; later, back at their departments, they were expected to accept their handiwork for the numbering of courses, counseling of students and so on.

The parents as a party at interest to SCNS are affected in the most indirect fashion, until their offspring are required to take "extra" credit hours or have to repeat courses, which costs money. There are still students who feel they have not been given full credit at university for their community college course work. It would be interesting to survey students who believe, because of similar texts or syllabi, that they were required to repeat substantial portions of courses taken previously. This would be not a study of repeated common courses, which if demanded can already be appealed to the Articulation Coordinating Committee, but a study of repeated subject matter. One might find that students feel like they have been repeating the same topics but only because of selective perception. Of course, some students, as did the writer, study Plato's Republic as a part of four different courses. There is no good research on the matter of repeating subjects, but there is on the repetition of common courses. Legislators and other government officials are currently interested in the latter; the former would surely be resisted by faculty as an unprecedented invasion of academic freedom.

Thus far the faculty at (the older) universities have been portrayed here as resisting articulation and SCNS out of what appears to be selfish interest in the support of an honorable tradition. There is another circumstance which many find undesirable that also is not of their own making. Community colleges list many courses in some disciplines (psychology for example) which are offered to satisfy the need of community residents and others not seeking transfer credentials. For example, some students could take 4-6 courses or more in psychology none of which would transfer toward a major in the university. If students aren't counseled not to do this, they may arrive at university, some faculty report, thinking they are almost thoroughly trained in the field. Although this is not likely to happen often, especially if a student follows the counseling manual of a university, it does present educational and personal dissatisfactions in both transfer student and university faculty advisor. Worse yet, if a community college permits its faculty to offer courses normally taught only at the upper division, the student can be placed at odds with the university departmental faculty. These faculty are responsible for determining the requirements to be met for graduation. Again, note that both student and faculty members can be at odds, blame it on SCNS, but the real problem lies with the community college, its chief academic officer, and the student transfer counselor.

Whereas the student can be seen as an intended beneficiary of SCNS, the faculty also must share the results of the System, even when they do not desire them. In some ways the faculty are being treated like SCNS is a monopoly supplier of services and faculty have no choice in the matter. Of course, this arrangement is supposed to provide for a greater good to a much larger population, whose members constitute the real clientele group, students.

When the students grumble but take no action to pursue their right to automatic transferability of common courses, nothing happens. When teaching faculty complain about their sole supplier of unwanted services (i.e., of SCNS and the faculty task forces) some administrators have reacted as if the faculty were the primary beneficiaries, i.e., the customers. That is, they acted as if every faculty complaint had merit even when student interests might be given short shrift. Because faculty are not the principal beneficiaries, their needs, wants and benefits are uppermost at SCNS only when benefits to students are not a priority concern. On the other hand, the need still exists at SCNS for faculty expertise in the classifying and equating of courses, which means the SCNS staff must be aware of and respond to the needs of faculty, as if they were customers. Clearly, the potential for goal conflict is inherent in the very structure of SCNS.

It is best to view faculty who serve on task forces as interdependent coproducers of several educational outputs. They are interdependent with the SCNS staff in the production of type one outputs, SCNS course identifiers. When these same faculty advise students using SCNS materials they are interdependent coproducers with the student concerning their plans, actual course enrollments, and such. The concept of coproducer also operates when a faculty member proposes a new course; (s)he "reads" the discipline taxonomy, then correctly assigns an alpha prefix and number to the course. Afterwards, when the course is approved and the faculty counsel or require students to enroll, the faculty-student interdependent coproduction of education results. This conceptual scheme defines coproduction as a mixing in one person of both productive effort and consumer user of the output products. When it occurs it is a "result of technological, economic and institutional influences." The most obvious of these three for SCNS has been the institutional reactions. The first one, technological, initially refers to the feasibility of coproduction; in Florida SCNS is mandated by law. It is of the interdependent type described above; however, note that this interdependence is not absolute and may be one-sided: "Students can supply much of their own education in the absence of teacher inputs, but teachers can supply little education without inputs from students." The economic aspects of coproduction are about the extent to which some faculty members can act as consumer-producers of classified course numbers; they do this when they are willing to be involved in the System and are willing to spend some time at it, first as a task force member classifying and numbering courses and, second as a user of discipline course lists or equivalency directories in the analysis of curricula or in counseling of students. Note that all faculty are likely users of classified courses, but all can not serve on task forces at one time because these "production" groups have few members and are few in number. This System is a nonmarket arrangement, meaning that there are no alternative suppliers of course numbers to be used statewide.

To make this system work effectively the SCNS central office staff coordinate the efforts of the task forces and their consumer-producer members. The central staff may have only to service the needs of the task forces and monitor their progress when each of the task forces have task-oriented chairpersons. Weakly organized task forces require more involvement of staff to insure their work is completed in a reasonable time. When the staff remains a fixed size but the number of task forces rise, the monitoring of task forces requires greater and greater effort (and time) which, if not available, leads to inattention or assumption by the staff of functions belonging exclusively to the faculty who are to maintain the system. Inattention leads to inefficiency or "cozy" arrangements between staff and a sole provider of services, such as the task force chairman who acts without consulting the other faculty members on the task force. The staff member who usurps the statutory function of the faculty also usually resorts to "cozy" arrangements so as to obtain some mark of legitimacy for his/her decisions.

The coproduction model of a public service like course numbering is unique at the state level. It is frought with the possibility of goal conflicts, inefficiencies and a variety of problems. However, the use of faculty at SCNS seems to have brought about a shift in control over the symbols to designate knowledge units from many small producers, e.g., departmental faculties, of which there are about 500 groups in the State University System, to about one-third that number. In effect the control over course identifiers has shifted to a select group which has developed expertise in the structure of knowledge in its discipline or field of study. What is not appreciated by most critics of this system is that it gave faculty more firm and certain control over the course symbols than had ever existed before. In the past it was not uncommon for secretaries, assistants to a registrar or budget officer or other non-faculty persons to determine the symbols to be used to designate courses. However, the faculty throughout the public postsecondary institutions who perceive their local departmental interests as paramount and who resent the imposition of the SCNS upon them do tend to behave like disgruntled consumers or customers.

C. The Analysis of Complaints

An evaluation study which is confronted with a lot of complaints from coproducers is faced with several choices. First there is a need to inventory the complaints and attempt to determine if there are patterns, i.e., repetitions of the same kinds of complaints. The complaints then must be examined substantively to determine whether they come from the same institution, rest upon the same assumptions, are serious or trivial, and so on. For example, a serious complaint would be one in which it was alleged that students would be irreparably harmed if old institutional course numbers were not retained in the catalogs. Perhaps the most important analytical task here is to note the frequency of certain kinds of complaints.

A second decision in the examination of all complaints is to sort out those which might be labeled as unfair. Obviously the evaluator can determine the criteria for inclusion of complaints in this category for the definition can be broad or narrow in scope. For example, complaints about the order in which courses are listed in a catalog should be directed to the institution's registrar who "owns" the catalog, not to SCNS; of course, if the person making the complaint that the State, meaning SCNS, requires all courses to be listed in the alpha order of their prefixes, and that statement is incorrect, which it is, then the complaint is still unfair. If this same matter is complained about by several persons at several institutions, then the SCNS would need to investigate and distribute widely a correct interpretation. Thus, even if a complaint is unfair, SCNS is placed in a position of having to set the record straight so that it (SCNS) does not become a victim of unjustified hostility and the confusion resulting from erroneous information.

This problem is widespread among staff at the universities, not only about SCNS but about many other state-wide matters. The writer has observed numerous instances in workshops for department chairpersons where individuals reported their inability to function in some way and attributed their problem to some non-existent Rule of the Board of Regents or state law. Inexperienced department chairpersons, new deans or associate vice presidents seem especially susceptable to misinformation about issues/matters having the appearance of originating from outside their institution. Obviously, better communications media and systems are important in the amelioration of this endemic problem (which also exists among faculty).

Another unfair complaint is one in which the reporter is misinformed, due in large part to not checking the alleged facts in the complaint, or because the reporter believes his or her experience warrants the complaint made. Persons who are experts in one area often may find themselves far afield when attempting to determine causes and consequences in other areas; faculty are not immune to this common problem. The sincere assertion by a faculty member that the Florida university graduates applying to out-of-state graduate and professional schools would be treated badly or ignored because of the unusual variety of alpha prefixes and four digit numbers listed for the courses on their transcripts is exactly this kind of issue. Persons making charges of this kind directly against SCNS in a public forum without any substantiating evidence are patently unfair in their criticism. And, when, as a survey of admissions officers clearly revealed, that this charge was absurd, there then was no forum at which to present the correct evidence.

Another set of unfair complaints are those which appear to be self-defeating prophecies (see Chapter VI). Their point is to gain consensus that someone's forecast of the future is so probable that (a) a program should be discontinued or (b) changes should be made in it which would reduce the probability of the horribles ever occurring. In the early years at SCNS many, many forecasts of both kinds were made and the director felt they had to be treated as if they were meaningful criticisms of the SCNS. A systematic assessment of these forecasts and charges led to identification of a group of faculty, most of whom came from only one or two institutions; from such evidence it became apparent that there was a systematic effort at harassment and pressure whose real purpose was to bring about the elimination of SCNS. When this action is taken with incorrect facts and spurious reasoning it is hard not to conclude that most of the charges, maybe all of them, were assuredly unfair.

Because the SCNS has been the target of so many complaints over the years, an annotated chronology of major events was compiled for the period June 1975 (when the SCNS statute became law) through August 1981. The documents on file at SCNS were supplemented with items from the minutes of eight different postsecondary interinstitutional boards, commissions and councils. Information from the chronology is used throughout the report. The pattern evident from this extensive record was that "center-periphery" communication failures permeated most major issues. The evidence is clear about this for the most serious of the major issues, some of which are described in Chapter IV.

With the thoroughness of well documented hindsight it seems apparent that SCNS had a need greater than almost any other state agency to systematically report its plans, developments, and problems. The literature on the use of complaints in evaluations suggests that a large volume of unfair complaints should be taken as an indication of confusion among the customers. That confusion can be eliminated through clearly written messages which are widely distributed. At SCNS that has not been done through the medium of a newsletter, quarterly report or even an annual report. Perhaps all of these, and more, are needed.

The importance of the communication problem for SCNS probably can not be overemphasized. The study of complaints (see Chapter VI), some of which are obviously fair and on target, were not found to be extensive, although unfair ones were plentiful. The absence of minimal information about SCNS among the teaching faculty led this investigator to avoid a survey of them. It was the results from a 1980 survey of faculty in the College of Communication at FSU which were extremely convincing: the faculty were so poorly informed that their responses about SCNS were few on most questions; no comments or examples were written out when asked for. Here is the way the faculty researcher who conducted the survey summarized the results for a staff member at SCNS:

> I think the data shows a breakdown in communication--probably at the school level [within the university]. The liaison person on the campus has not talked to the faculty.
>
> The faculty know very little about CCN, do not find it very useful and don't care.

From this well designed survey instrument the faculty of 22 provided these general results: two-thirds or better considered themselves accurately informed about: the basic logic of the SCNS taxonomic structure, the basic principles for assigning SCNS prefixes and numbers, the use and meaning of the first digit of the course number, and the identity of the SCNS liaison officer. About 55% knew something of the responsibilities of the liaison officer. A third or less know something about: the responsibility of faculty to recommend prefixes and numbers (36%), the rules for equivalency of courses (27%), the equating of sequences of courses rather than individual courses (18%), and the exceptions to the rules for equivalency of courses (9%). Only 5 persons (22%) had seen the SCNS directory of equivalent courses for their discipline and only one person had seen the microfiche. The same number had seen the profiles and thought the taxonomies, directories and profiles were readily available in their department. However, five or six persons said they used some SCNS materials in the advising of students. About 41% thought they understood the term "occupational" sufficiently well to distinguish such courses from those traditionally labeled "academic"; however, none wrote in a definition which was asked for. The one term which elicited another majority response (59% "yes") was: "Do you think that the presence of prerequisites for courses should be a factor in determining course equivalencies?" (Incidentally, it should be noted that the director of SCNS was criticized for faculty being poorly informed in the report from another survey and then told that he should have taken sufficient action to see that everyone in the institution was informed; however, the director's offers of help to the institution's academic vice president were continuously rebuffed.)

D. Old and New Surveys

The survey instruments from a number of other surveys related to SCNS were consulted for this study. Those found were from Florida Atlantic University, 1978; Florida State University, 1979 (with more commentary in 1980); the ad hoc study of the conference on college composition and communication about uniform course numbering systems, 1979. The survey results were important for identifying questions and issues based on misinformation, incorrect assumptions, and the gut-level reactions of faculty et al. Most of these surveys were conducted before the first four-year cohort of students had graduated with their transcripts recording only SCNS classified course numbers. Or, the surveys asked faculty if SCNS had helped them advise students when there were no SCNS materials developed or, if in existence, had not been distributed. And, as might be expected in these circumstances the faculty respondents rarely believed SCNS had been helpful. One survey expert who analyzed two of the early questionnaires suggested that analysts should keep the response data and use them as base line information from which to measure change over the next several years.

When student opinion was surveyed in 1979 at FSU, those transfering from community colleges agreed by 48% (26% disagreed, 26% didn't respond) that SCNS was helpful in avoiding having to take over the same courses. The faculty, with little systematic knowledge, agreed slightly (17%) and disagreed more strongly than the students (35%), but 48% didn't respond, probably because they had no reliable information. On other similar questions and issues in the two survey instruments students usually were strongly supportive of SCNS and faculty were not; these were the only surveys of students found. One major survey of student experience was found in a landmark study at Santa Fe Community College, which is reported in Chapter V. It provides evidence which indicates that SCNS has been successful.

Faculty opinion was surveyed for this study, but it was obtained from university faculty who were either department chairpersons or members of SCNS discipline task forces. The first group was identified from a list of persons attending the Kellog Foundation sponsored workshops for new department chairpersons in the nine universities. Through testing and surveys at the workshops it was found that these persons tended to be very task oriented which suggested that they were as likely to be informed about SCNS materials, as any other group of faculty. Task force faculty members (still alive, not retired or relocated) who had several years service were selected, with an attempt made to make sure that all nine universities were represented. Many times during the process of selecting the task force members, which was done by the writer in the presence of SCNS staff coordinators, a warning was received that person X was wholly negative, obstreperous, a non-believer (in SCNS), not too reliable, or relatively uninformed about the System. Nevertheless, no one was rejected on the above grounds, because it was the experienced persons of all attitudes who were being sought. The survey results are reported largely in Chapter VI; almost no surprises were revealed by the survey. Probably only better and frequent communications to all 500 chairpersons in the SUS over a period of several years might begin to produce survey results based on an understanding of SCNS and its products and services. Perhaps more valuable as a result of this study are the reactions obtained from the institutional liaison officers. They precede the reports of faculty in each section of Chapter VI and are surprisingly diverse.

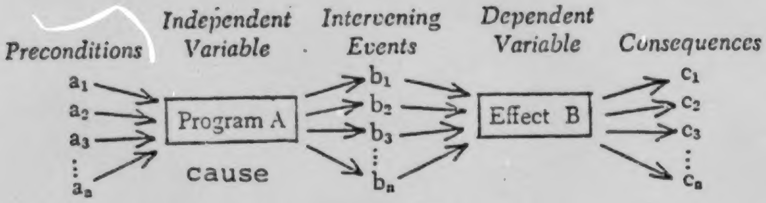
Given the substantial lack of information on the campuses about SCNS this evaluation study begins with a thorough description of the program. The SCNS staff were very helpful in providing information and their pet names for reports and activities; they also helped insure the completeness of the descriptive information. It is hoped the reader will study these early chapters, II through V, before examining the reports from surveys of perceptions. The early chapters provide the needed background and context for interpreting the reported perceptions. The concerns and complaints listed in Chapter VI do provide an agenda for the next Policy Council, the director, and staff of SCNS.

E. Evaluation Concepts Underlying This Study

The field of evaluation has blossomed since the year 1963 when the principal investigator conducted his first evaluation study. The body of theory which has developed for evaluation studies has begun to merge back with the ever expanding area of policy studies; the latter grew out of public administration, organization theory and the social sciences. Program evaluation has been around many years; it was formalized during the early 1960's when PPBS was the rage of federal decision-makers. Academic program review is a particular form of comparative analysis and a particular kind of program evaluation. These two forms tend to avoid the techniques of cost-benefit analysis like they were a plague. Evaluation of learning, yet another kind, appears to be much older than either form of program evaluation; a significant portion of it's theory resides in the older area of tests and measurements. The latter's intimate concern with the correct statistical design for experiments and the validity and reliability of tests does have some applicability to formal program evaluation, but these matters are only applicable when the characteristics of a good experimental design are built into an evaluation plan at the time a program is created. In the field of public policy there are at best only a few programs which meet these rigorous requirements.

It is instructive to review the characteristics of SCNS in light of the requirements for a valid experimental design to evaluate programs. For example, one of the first questions to be answered is "who is the target population, i.e., who are the intended users or beneficiaries?" An examination of the statute, rules, and other documents suggest some groups, e.g., students, admissions counselors, registrars, academic advisors, faculty advisors, curriculum analysts, MIS specialists, budget and funding analysts, and others. There is no single target population, although students are most often seen as the intended ultimate beneficiaries. If, for example, students weren't in this position faculty dissatisfaction with SCNS might have overwhelmed the support which registrars have provided for it. Thus, the first to be considered are students, but they are only a necessary group; the faculty make SCNS possible, as coproducers, first by deciding which courses should be equated and then in another context by advising students the courses for which they can claim automatic transferability. In this multi-role configuration, all faculty can be seen as intermediaries between SCNS as a program or "cause," and students transferring without loss of credit, the "effect." The introduction of intervening forces (e.g., faculty) in the simple experimental design adds an enormous range of complexities; the fact that they function in nine different institutional environments in the upper division adds further complexity. When professional accrediting groups and faculty discipline associations exogenous to the standard experimental model are also seen as intermediary forces or influences, it becomes evident that formal analysis using this model is really not possible. The chart below illustrates the more appropriate analytic model for most program evaluations. The preconditions, for example, represent the perceived need for a program; in this case, students

The Open-System, Naturalistic, Multi-Causal Model for Program Evaluation


Preconditions
Independent Variable
Intervening Events
Dependent Variable
Consequences
a1
a2
a3
an
Program A
cause
b1
b2
b3
bn
Effect B
c1
c2
c3
cn

Source: Suchman (1967), page 84

were being told they didn't have the exact courses they needed when they transferred from junior college to university. Other preconditions are related to the support and program goals of SCNS. The production of type one outputs is preliminary to type two outputs and their effects. The consequences of SCNS are seen as immediate and long term, depending on the extent to which SCNS products are integrated into the advising of students, managing of the curriculum and long range planning. This desired pattern of results from SCNS requires a more realistic and now conventional form of program evaluation.

Furthermore (and unfortunately), implementation of an experimental model would be impaired because there are no base line data for a time one measurement before SCNS began as a program. (There were, of course, complaints from students, parents, trustees and legislators.) Furthermore, measurements at time two may be possible, as in the

Santa Fe study, but there is uncertainty about the exact calendar date appropriate for a time two. For example, the first four year cohort of students (with all SCNS course numbers on their transcripts) moving through the universities may have graduated in June 1980 or perhaps 1982, depending upon the extent to which students attended full-time. In this period all students, whether native or transfer, would have experienced the same course numbering practices throughout most of their undergraduate career in Florida. However, for those finishing in December 1981 or June 1982 there will be some confusion, frustrations and hostility (a confounding effect) possibly directed toward SCNS, because of the change in course numbers resulting from the universities converting to the semester calendar. Conceivably, the confusion to this group of students could be minimal and even not erroneously directed to SCNS. Perhaps it should be the class graduating in June 1985 which should be carefully studied if the full impact of SCNS is to be judged. (Note, though, that some universities may "solve" their articulation problems as student enrollment demands decline, by becoming more conscious of the problems and needs of transfer students.)

Since this evaluation was scheduled for summer 1981, and no systematic method was available for directly assessing student benefits (there should be such as the Santa Fe procedure is programmed generally), the next time two question for an experimental design would focus on faculty. Two points are important here: (1) the course numbering scheme of SCNS does not inherently reveal any intended sequence of courses for any particular institution or discipline; instead, a list of courses with their different subject (alpha) prefixes and numbers must be prepared and included in a program description, whether in the catalog or on a separate handout for students. Faculty advisers find this confusing for their own and other programs in their institution; a conscientious adviser is required to look up courses in other departments, whose course offerings are likely to have several different prefixes. This feature alone is a constant reminder to faculty that SCNS was imposed on them by the State and that the system fails to meet one of their fundamental needs if they are to efficiently advise students, e.g., few and simple course symbols. Thus, it should be expected that overt dissatisfaction with SCNS will exist among most university faculty for many years. This situation tends to make surveys of faculty confirm what is already known.

The second variable in the time two determination for faculty revolves around the development and use of SCNS materials which will alleviate some of the permanent dissatisfaction and actually make it possible for the faculty to perform "better" their various tasks and activities. The development of the Course Equivalency Directory at SCNS should have been such a product. However, so few faculty have seen it or even know it exists, that the product must be considered not yet diffused, let alone considered for adoption. SCNS has made only a minimal effort at diffusion, largely because of financial contraints plus the lack of cooperation of some institutions. In fact there are several universities where diffusion has been resisted; one refused to order or distribute microfiche, which, unfortunately, appears to be an undesirable product media. Another university has no top leaders or middle level administrators who believe SCNS has any benefits at all; their deliberate indifference converts easily into a self fulfilling prophecy about SCNS. Thus, at some universities time two for faculty may never arrive, or may begin only by some fortuitous development. And, if faculty are never encouraged or shown the products which can assist them and their students, it is unlikely their early negative attitude ever will be changed. Fortunately, there are some unique institutional experiments in preparing counseling and advising records of students for faculty use; these computerized systems are structured on SCNS courses and taxonomies. (See the descriptions in Chapter V about the first rate systems at Miami-Dade Community College and at the University of Florida.) These systems list the required courses for pre-majors and majors which should help alleviate the most common frustration of faculty. If the systems work well it will be interesting to determine in the future if faculty attitudes toward SCNS have changed.

Thus, with almost no direct measures of benefits to students and one of the most important user groups strongly dissatisfied and biased against the system, a simple measurement of program effects was almost impossible. However, the categories of variables, some of which are effects, which should be measured were used to organize the evaluation study. The sets of program variables which should be and were considered are:

(1) component parts and processes of the (SCNS) program;

(2) situational conditions within which the program occurs;

(3) differential effects of the program; and

(4) specific population or target groups reached.

The report itself relates to the above categories. Chapter II, the first to report the results of the study, is about categories (1) and (2); Chapter III is also concerned with (2); Chapter IV relates to (3); Chapter V covers (3) and (4); and Chapter VI also focuses on (4). The overlapping results from examination of several dimensions of similar phenomena.

Finally, comes the question: "Has the program been successful?" To answer this question requires an examination of the effects of the program and whether they were the ones desired. In the conduct of the study a large series of operations had to be organized and executed. The first one was to develop an inventory of goal statements, arrayed according to the list of variables outlined above. Next was conducted an inventory of the program's effects, which for SCNS meant an inventory of SCNS outputs and their utilization. In fact, both of these inquiries were undertaken at the same time, as is customary. An early documentary search and a series of telephone interviews were used to complete the goal inventory; the goals were checked through personal interviews in the State Capital. A program office which maintains excellent field contacts and receives materials from them will usually have a substantial set of documentary files which can be used in these searches; such resources at SCNS were superb.

The third operation was to compare the effects of the program with those which were desired and intended. Unintended effects have to be examined to determine the reasons for their emergence. A judgment must be made whether an unintended effect, which is also undesirable, is so severe that it impairs the success of the program. Two unintended effects were clarified early in this evaluation study: the persistent dissatisfaction of the faculty and the unwillingness of some community colleges and universities to undertake usage of SCNS outputs. It appears that both may be ameliorated by systematic cooperation between SCNS and the institutions. Thus, there does not appear to be any unintended-undesirable effects which are likely to be fatal to the program unless the status quo is allowed to persist. In fact, it appears from reactions to an early draft of this report that better communication from SCNS to the institutions and departments are being considered and should help ameliorate the dissatifactions of faculty and alert them to the potential benefits of SCNS products.

The worst kind of programs are those whose effects are destructive or, are obviously harmful or are conflict generating; programs producing these results (outside of war) are often explained as not intending them. Instead, it is often asserted that the opposite effects were desired. Charges that not listing old institutional course numbers in catalogs would irreparably harm students is an example of an attempt to (mis)label SCNS as a destructive program. No direct or indirect evidence was found to support this unfortunate accusation.

One of the more difficult comparisons--a misnomer in this instance--occurs when there is no evidence found of an intended effect. The lack of response to a program must be explained in some fashion. An unsuccessful program is one which has no effect; that clearly is not SCNS, as Chapter V indicates. An unsuccessful program is "money down the rat role"; it is obviously long on costs and short on benefits. This is, of course, the other more common definition of an unsuccessful program, i.e., one whose effects are costly but whose benefits are few. Charges (mostly by faculty committees) that SCNS fits this description have been made for several years, but no evidence has ever been put forth which demonstrated any cost-benefit analyses had been undertaken, let alone completed. All of the problems surrounding the determination of a time two date discussed above apply 100% to conduct of cost-benefit studies. The problems with cost-benefit analysis are further discussed in Chapter VI.

The description of how SCNS outputs were being used (Chapter V) includes some unspecified usages (i.e., unintended ones) which were certainly desirable; the two computerized counseling systems developed by institutional staff are prime examples. However, the director and supporters of SCNS always assumed that the products of the system should greatly enhance academic advising.

By the logic of the categories employed in program evaluation studies a successful program is one in which the desired and intended outputs are produced at some reasonable cost. A review of this report should suggest that SCNS has been a moderately successful program by almost any rational definition. However, it is facing some troubling times which could reduce its impact to the barely marginal or expand and become obviously beneficial. The reader is invited to consider the evidence which follows and review the progress being made currently by the SCNS staff.

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CHAPTER II

ORGANIZATION OF THE STATEWIDE COURSE NUMBERING SYSTEM

A. Statewide Structures and Functions

The organization of the SCNS and its central office is based on the activities assigned them, the tasks to be performed, ad hoc demands of state officials, and the needs of constituent groups. Because the course numbering system relates to the instructional program elements of postsecondary vocational centers, community colleges and universities it is located within the central staff structure of the State Department of Education (DOE). The director of SCNS, Dr. Philip D. Goldhagen, reports to the Associate Deputy Commissioner of Education, Mr. W. Cecil Golden. Mr. Golden is also responsible for the entire Department's budget analysis and fund allocations, management information systems, long range planning, and many other important activities, all of which have an impact on public education, kindergarten through university.

State Level Articulation

One of the functions or operating goals of SCNS is the development of a statewide inventory of postsecondary courses, including identification of those courses which are common to two or more institutions or are unique to a single institution. One of the ultimate or long range goals to be served by a course inventory of equivalent courses is to make it possible for a transfer student to obtain credit for all common courses taken whenever he/she moves from one public institution to another. Thus, SCNS is situated in one of the State offices concerned with articulation between the community colleges and universities; its benefits also extend to students who are transferring between colleges or between universities.

Problems with transferability of credit which can not be worked out satisfactorily at the institutional level may be appealed to the DOE's Articulation Coordinating Committee. The chairman of this committee is appointed by the Florida Commissioner of Education. The Commissioner is an elected state official who heads the Department of Education; he acts as secretary to the State Board of Education, which consists of all administrative-executive officials elected statewide, except the Lieutenant Governor. He is also one of the 13 members of the Board of Regents which oversees the nine public universities; and he works with the Governor who appoints the other 12 Regents, as well as the 11 members of the State Community College Coordinating Board for the 28 community colleges. These two also work together with the other members of the State Board of Education which collectively appoints members to the Florida State Advisory Council on Vocational and Technical Education and to the boards of trustees of each of the 28 community colleges.

The Articulation Coordinating Committee has three members appointed by the director of the Division of Community Colleges; three more are appointed by the chancellor of the Board of Regents. By custom and practice the Commissioner of Education has appointed the Deputy Commissioner of Education for Special Programs as chairman; the director of community colleges has appointed a person from his academic affairs staff and the chief academic officers from two colleges. Similarly, the chancellor has appointed an academic affairs person from the BOR staff and two university chief academic officers. The institutions chosen to send academic affairs officers are rotated on and off the committee every two years, although some like the academic vice president from the University of Florida may serve several terms.

The general responsibilities of the articulation committee are stated formally in Rule 6A-10.24(14) F.A.C.; an analysis of its duties may be found in section 14 of the Interpretations and Annotations of the Articulation Agreement, November 1977. The Minutes of the meetings of the Articulation Coordinating Committee provide the most current interpretations of the Agreement. In addition to hearing appeals, authorizing studies, and so on, the committee is assigned by Rule to

> 14(g) Develop procedures to improve community college-state university articulation by exploring fully specific issues such as academic record form, general education requirements, unit of credit, course numbering systems, grading systems, calendars, and credit by examination.

In the last several sessions of the Florida Legislature, new program operating responsibilities have been assigned this committee; e.g., developing sophomore skills inventories.

On December 17, 1974, the committee reaffirmed its support for the common course numbering project and has referred difficult matters to it ever since. Thus, there exists in the Department of Education, in addition to SCNS, a broad based committee of academic administrators with some of the same program concerns as the SCNS. Within the present structure of DOE, the committee and SCNS appear to be collateral organizations in many ways, although lodged under different DOE deputy commissioners.

Policy Council

The SCNS has had in its 10 year lifetime some form of an advisory council, with members from different institutions and state agencies. The director of the SCNS served as the chairman of the first committee which consisted of registrars (from public and private community colleges and universities) and representatives from the division of community colleges and staff of the BOR. After the responsibility for development and coordination of a common course designation and numbering system was formally assigned to the Commissioner of Education by the 1975 Florida Legislature, 229.551(1)(g) F.S., the SCNS director redesigned the committee and it became the recent Policy Council. This change was necessary because the legislation states that the System was to be maintained by faculty committees. The Commissioner of Education appointed the council members, most of whom were faculty members. A faculty member, Dr. David Hernandez, University of Central Florida, was appointed chairman of the Council by the Commissioner of Education. The Council met regularly during the implementation stage of the program, with its last formal meeting held February 16, 1978. Originally, it was thought that the Council would hear "appeals" from faculty or institutional administrators about the course classification or number decisions of faculty discipline task forces. Only one such major dispute came before the Council (and it appeared twice); some matters of this variety over business courses may be emerging, but the Council is not active, even if it should be involved.

The role of the Council as conceived by the first director of SCNS, Dr. Michael A. DeCarlo, and given tacit approval by the Commissioner, was for it to be advisory to the director. The initial assignments to the Council members which accompanied their appointment letters may be found in Appendix B; following these is a statement of the procedures by which appeals to the Council were to be processed. The Council in its few meetings did deal with a variety of issues and topics. Although the Council has not been meeting currently, more than 600 faculty were at one time appointed to serve on 150 or more discipline task forces; they were supposed to classify and number courses for SCNS as required by law. The reasons given for the Policy Council not meeting are that no large issues of statewide concern have arisen, and/or no issues have arisen for which there does not already exist ample precedent and existing policy.

Postsecondary Linkages

Organizationally there are no formal linkages between the staffs of the three postsecondary divisions and SCNS. The SCNS Policy Council mentioned above was one such source of contact for it included the head of each of the division's management information systems. Informally, the director of SCNS sends information copies of materials to the various persons in all three divisions. Opportunities for interaction and communication among these various entities is enhanced by having the SCNS offices located in the same building (Collins) with the three divisions. It should be noted that the Board of Regents staff has had little or no responsibility for university courses; it has been concerned principally with degree programs. The Vocational division has been largely concerned with development of program competencies, but not traditional courses. The Community College division staff are not concerned with courses per se, although they do code as academic or occupational each new course to be entered into the SCNS course inventory. Over the years, all three divisions have been recipients of inquiries and complaints from their postsecondary institutions about SCNS; these most often come in the form of questions about its authority, procedures, course classifications, its studies and their publication and distribution. Sometimes these matters are referred to the director of SCNS, other times they are passed on to the Associate Deputy Commissioner, or the Commissioner of Education.

Up to the present time the director of the SCNS has been asked by many persons to send them information or to give oral reports to various groups concerned about SCNS. A subcommittee of the Postsecondary Education Planning Commission, newly created in the 1981 Florida Statutes, has been the latest; one of its members is a former president of the Florida Senate and long-time supporter of SCNS. Several other current and former senators, including the current Governor, have actively supported the creation and implementation of the SCNS. It was the House, though, through the work of its education committee chairman and staff director* who wrote the language about course numbering now appearing in the Florida Statutes.

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*An FSU professor on leave then, who is now the academic vice president of FSU.

A variety of practioner and faculty professional associations have criticized or endorsed SCNS and some have worked actively to terminate its existance or effectiveness. Over the years, as fears were allayed and the system institutionalized as a part of State government, much of the criticism has subsided; however, there are still many, many persons who oppose the system and are skeptical about the possibility of any benefits flowing from it.

One of the long-time supporters of the SCNS has been the Florida Association of Collegiate Registrars and Admissions Officers. The officers and members of this association worked for several years to bring about some uniform procedures by which to prefix and number courses. Their efforts led to the first guidelines for systematically prefixing and numbering courses. At one time or another, (circa 1971 and later) the inter-institutional councils of community college presidents and academic deans and the similar councils of state university presidents and academic vice presidents have all endorsed SCNS. However, the community college councils have provided the most consistent and continuing endorsement of the program over the past 10 years.

Institutional Liaison Officer

Another very important organizational element of the SCNS is the Institutional Liaison Officer. This person functions as the institutional contact point with SCNS staff.

All new or revised courses and discipline taxonomies are distributed by SCNS to the liaison officers of the 37 public community colleges and universities, and at least one private college. Each liaison person is supposed to screen course changes and additions which originate at his/her institution and help faculty and chairpersons obtain appropriate classified course numbers, etc. They forward to SCNS all institutionally approved changes to the courses in their inventory. The total set of functions and duties they are asked to perform (by the director, SCNS) may be found in Appendix B-4.

An examination of the 1981 list of liaison officers reveals that they hold a variety of organizational titles and positions. At the 28 community colleges, 13 are deans of academic affairs or instruction, although one was a dean of occupational rather than institutional instructional or academic programs. Another seven were registrars and one was an admissions officer. Three were directors of academic programs or curricula and two others worked as staff persons for educational services or academic affairs; one was a PPBS coordinator. One college's liaison officer could not be identified. Four universities had directors of registration and admissions as liaison officers; three of these institutions were upper division universities. Three universities assigned as a liaison officer an associate academic vice president. Of the remaining two of the nine universities, one had assigned a director of student affairs to this position and the second a special assistant to a dean of faculties. With one exception, each of these university administrators had assigned the actual liaison tasks to an administrative or clerical assistant. Such delegation was also true at some of the community colleges, even though the liaison officers there seemed very well informed about the SCNS. The staff at SCNS unanimously reported that the special assistant to a university dean of faculties was one of the most efficient university liaison persons, followed closely by an assistant academic vice president who personally handled many of the details of course numbering. Several persons at the community colleges ranked very high. A few college liaison persons were thought by SCNS staff to be less efficient than expected and one university's contact person(s) seemed very difficult for the staff to work with efficiently. Efficiency in this case indicates that the liaison officers do not return calls within a day or two or answer mail inquiries within a week or so, without a lot of repeated prodding by SCNS staff. (This same kind of inefficiency has also been reported for a small group of faculty task force coordinators, located at a variety of institutions.)

Both the liaison officers and faculty discipline task force coordinators are institutional "volunteers" who are often recruited by, or at least approved by, institutional administrators. The director of SCNS requests the institutions to recommend someone for these roles, although he may suggest persons who would be desirable. The process of recruitment is usually channeled through the chief academic affairs officer of the home institution. With no formal guidelines involved, the selection and functioning of liaison officers rests on the cooperative efforts of institutional officials and the director of SCNS.

Task Forces

The discipline task forces are composed almost exclusively of faculty although some representatives from the community colleges are part-time or temporary administrators. Task forces are committees which classify and assign numbers to the courses approved at each public institution. The need for faculty committees is based on their subject matter expertise and is stated in Florida Statutes. Faculty may often view service on these task forces as similar to work done on curriculum committees. In all, more than 600 faculty, mostly from the universities, serve on 150 task force committees. They range in size from two to 14 members.

The task forces function like most small groups, which means that human interaction and personality needs and quirks shape the ability of these groups to accomplish their tasks. The importance of understanding this aspect of committee life became very apparent during many early task force meetings. At these, a few faculty members often admitted to their peers that the primary reason for attending meetings was to help scuttle the project. Some task forces were torn with open hostility between community college and university members. In some instances it was necessary to reappoint entire task forces or add several new members willing to work on the assigned tasks. Incidentally, the role of the SCNS professional staff is to facilitate and guide the work of the task force. There have been two instances in the history of the 150 task forces when a staff coordinator was changed because of personality conflicts; the same person was involved in both instances. A capsulized history of the efforts of 15 task forces can be found in the Discipline Analysis Working Papers.

The head of a task force is determined by a variety of procedures, including recommendation (nomination or election) by a majority of the members on the task force; through recruitment by the director of SCNS or by the SCNS staff coordinator of the discipline; recruitment by the retiring task force head; or emergence of a volunteer (i.e., self selection). Often the director of SCNS sends an announcement about the selection of task force members to their institutional presidents so that their service can become a part of their assigned workload. Department chairpersons are premitted to make such adjustments under the Florida 12 hour teaching law (Chapter 73-358, Acts of Florida).

The activities to be performed by the task force coordinator as envisaged by the director of SCNS appear in Appendix B. Many times an SCNS staff member will consult a task force chairperson to inform them of routine matters, including changes to courses which are fully documented and non-controversial. Some task force coordinators want to see every proposal for a change or addition to their discipline's data base of courses. Virtually all course additions are discussed or the paperwork sent to the task force head; in the past only very controversial course matters were referred to the full task force. During the recent conversion of courses in the universities from the quarter to the semester calendar, it was virtually impossible for the task forces to meet because of the time problems. Furthermore, it was inappropriate to try to mobilize the task forces, had time permitted, because not all universities turned in their converted courses at the same time. For example, FIU was still sending in courses to be converted as late as the middle of August, 1981, with the new semester virtually underway.

In summary, SCNS is an operating agency, but functions in an organizational structure that is statewide, multilayered, with each level containing a series of networks. Perhaps the most distinctive characteristic is that the parts all interact and function almost exclusively on a voluntary basis.

B. The SCNS Central Office

The office of the SCNS is located in suite 108 of the Collins Building, located at the corner of Duval and Gaines Streets, Tallahassee (32301). The suite was renovated in 1979 to provide space for current staff, computer terminal operations, conferences and future expansion. The offices are in close proximity to those of the BOR, and the Divisions of Community Colleges and Vocational Education. The SCNS is headed by a program director I.* In addition, four professionals, education consultants II and III, and three secretary/clerical positions are authorized. One professional position was vacant several months as the staff, associate deputy commissioner and director engaged in protracted discussions about the skills needed in a replacement. On July 1, a clerical position was refilled, but was vacant again in early fall. The characteristics of staff, their functions and roles will be considered in detail after the budget is examined.

Budget

The 1980-81 budget of SCNS was $131,521, of which $102,895 (78.2 percent) was for staff salaries. Another $20,300 was allocated for computer services, with the remainder for telephones, travel of staff and task force members (faculty), supplies, microfiche, and so on. If the 36,075 transfer students in the nine public universities in fall of 1980 were asked to pay a surcharge each academic quarter (fall, winter and spring) to underwrite the 1980-81 SCNS budget it would have cost each one $1.22 per quarter. On the semester system, each transfer student would have been charged $1.83 twice a year. (It should be noted that the number of transfer students comes from university records. The number does not include data from the community colleges which receive transfers "back" from the universities and from other community colleges. Neither does it include transfer students shifting among the universities. Thus, the actual surcharges would be smaller--but no one knows by how much--if all interinstitutional transfers at the undergraduate level were included in the denominator.)

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*This and the following refer to position titles used in the Department of Education.

There are, of course, many other direct costs which can be attributed to the existence of SCNS. The salary for the person performing the function of liaison officer, if it is in fact a full-time job, would be another cost. Each time large sections of an institution's catalog would have to be completely rewritten, the costs might be attributed to SCNS. The costs could arise because of a change in the prefixes and numbers for a discipline, such as English, which are part of many curricula at the lower level. It should be noted that many university departments go through periodic curriculum revisions, resulting from the actions of departmental faculty, college or school reorganizations, changes of calendars, and so on. It hardly seems appropriate to pass along all such costs to SCNS when the institutions would ordinarily absorb such costs. The costs apparently seem larger when many institutions have to make changes at the same time.

During the developmental phase of SCNS, separate allocations were made by the BOR to each university which had faculty serving as task force chairpersons. These were clearly tied to SCNS, but are historic costs. No separate special allocations are now made by the BOR to the universities.

The aspects of costs and cost estimating are discussed in greater detail in Chapter VI.

Staff of Central Office

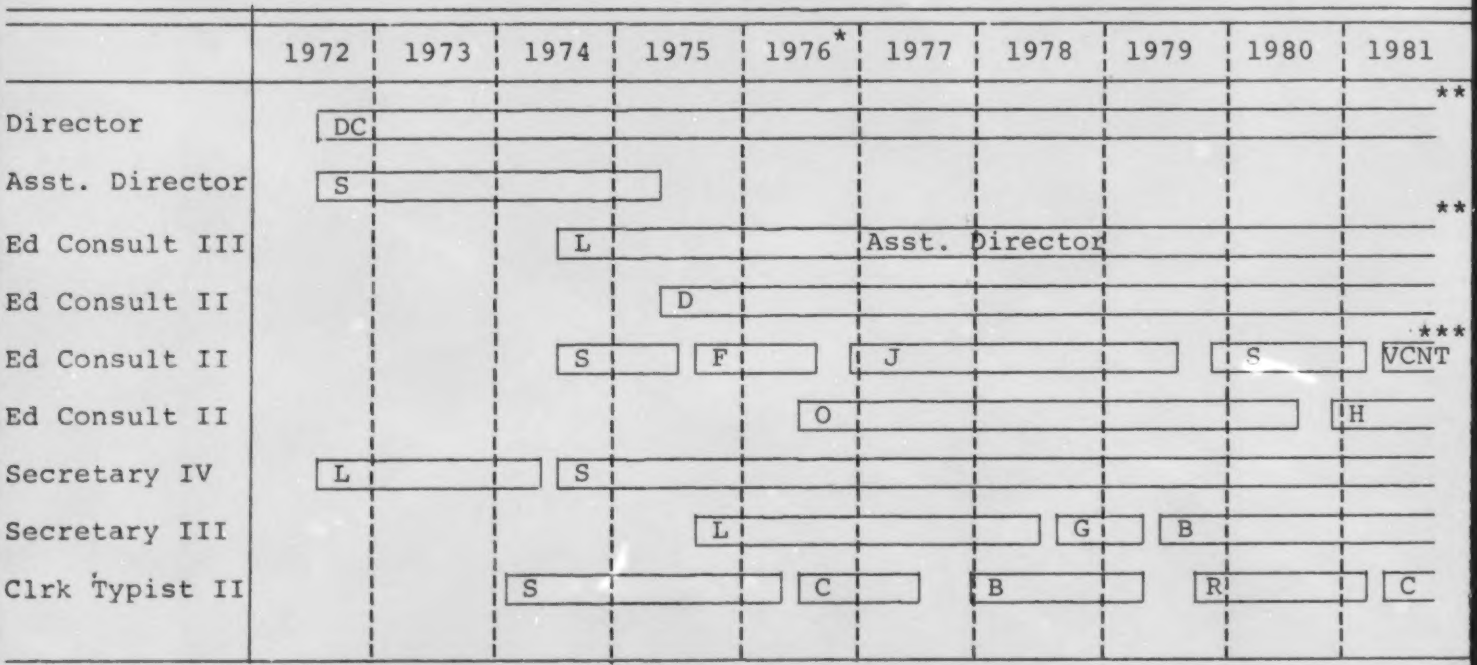
As indicated at the opening of this section, the SCNS central office was in the process of filling a vacant professional position while this study was in progress. That vacancy is symptomatic of two serious problems in the SCNS central office: (1) the turnover of professional staff and (2) the differences of opinion among the staff about SCNS priorities, skills required to perform its operations and decision-making arrangements. This second problem appears to have been simmering for several years, but emerged only as a crisis situation during the final weeks of this study. During late August 1981, the associate deputy commissioner took an active on-site interest in the operational details of SCNS. Although early fall of 1981 was a traumatic time for the staff, it was apparent by late fall that they were making an effective effort to restore the harmonious and productive relationships which were the hallmark of the SCNS central office during its inauguration years. During this period, when many hostile reactions and problems came almost daily, the SCNS staff worked all kinds of hours, functioned with little hierarchy, and effectively created a 56,000 course inventory. It would have been an irony of ironies if internal disagreement was the force which did the most harm to the effectiveness or survival of SCNS. However, with a new director, one new staff member hired in the fall and another new one brought in to fill the position of the former assistant director, normal work patterns have resumed.

The first problem mentioned above, staff turnover, becomes evident when the facts are displayed graphically. Chart 1, "History of Staffing Turnover Since November 1972" portrays the problem. Two of the professional positions have occupants who rarely stay three years, with several staying less than two years. All of the former staff now occupy equal or better paying positions, with the exception of one person who is working full-time on a doctoral program. Fortunately, this doctoral student needed employment and was able to return as an OPS temporary employee during summer 1981; she made it possible for the staff and director to

Chart 1

STATEWIDE COURSE NUMBERING SYSTEM

HISTORY OF STAFFING TURNOVER SINCE NOVEMBER 1972



*1976, the year SCNS was implemented in Florida's public community colleges and universities.

**New appointees by 1982.

***Filled in October 1981.

obtain a variety of (formerly) standard products from the computerized inventory, to have revisions completed to several taxonomies, and so on.

The turnover problem creates a number of subproblems which clearly impact the quality of the work possible by the remaining staff. The first shortcoming is, as indicated above, a loss of technical skill. The loss of a staff member with the skills to program the computer on-line in order to generate the basic lists, analytic reports, tapes to produce microfiche and so on, must be considered a critical loss. With no staff member yet fully trained or qualified in these technical skills, it appears that the ability of the SCNS to work toward achievement of its ultimate goals is impaired, at least for a year or so.

Secondly, loss of a staff member requires temporary reassignment of discipline course inventories to the remaining staff. When inquiries were made about some of the discipline inventories being held temporarily by current staff, one member couldn't identify the task force chairperson for several disciplines and was unable to locate historical documents, files and a variety of other important information. Clearly, some disciplines were getting short shrift; it's fortunate no faculty were discomfited by this circumstance. This situation can not be considered an evaluation of the ability of existing staff members to perform effectively the work of their "permanently" assigned discipline course inventories. But, it is clear that with no "pride of ownership" the temporarily assigned disciplines receive little attention. This condition existed in 1981 during that time in SCNS history when the single greatest number of changes (about 22,000) were being made in the SCNS course inventory.

Third is the fact that it may take a new staff member as long as one year or more to become effective; (s)he must do so while working with their regular set of discipline course transactions and with the faculty chairpersons and members of the discipline task forces. It may take an inexperienced person two years or more to learn the nature of the traditional difficulties which are often encountered whenever a course change or new course is submitted to SCNS. This means that the data base--at best--remains at its previous quality level, about which no one can speak with authority. The ability of the new person to clean up the existing data base is a necessary requisite to simply bring the quality of it up to par. To improve it, to analyze it, to ask questions knowledgeably of it requires substantial experience and a lot of data perusal and diplomatic inquiry. Without a concern for these matters, significant portions of the SCNS data base could become formalistic and unrepresentative of reality. This is a warning sounded by the academic vice chancellor of the BOR several times, viz, that the SCNS may become an empty formalism. Staff turnover seems the most likely cause of a decline or diminution of quality in the SCNS course inventory. Perhaps now that SCNS is fully staffed and operational it will be possible to fully address the quality issues and the controls needed to maintain the appropriate quality levels.

Pay is not the only reason, but a very important one, for staff leaving their positions. Better positions, movement to a desired career ladder with promotional opportunities and just plain "goin" home (back to one's area) to work seem to have been important reasons for staff to leave SCNS. Most recently, the former director and assistant have taken positions with broader responsibilities and new career paths. Also important are the human relations aspects of the jobs at SCNS. Some persons seem to have left because the jobs were too laden with undisguised hostility from task force chairmen. Many of the latter indicated that they had taken the job as an overload activity without compensation and they wanted SCNS to "kowtow," i.e., do exactly what they told them and they didn't want to hear any directions about how to handle the courses in their disciplines. Fortunately, most of these persons resigned as task force chairpersons; however, a staff member who had two or three of this kind of chaiperson often wondered if there wasn't a better way to make a living. With one exception, all of the early staff leavers seem to have become more successful, and, by their declaration, better paid.

One other aspect of the turnover situation needs to be identified. The blank spaces within the bars on Chart 1 indicate the days when the position was not filled. This is lost time which cannot be made up; the time lost is partly a result of the open search process plus the decision making system in DOE for personnel matters. In other words, there is probably some minimum "down" time which is inevitable when a position is to be filled. The internal disagreements at SCNS also delayed the hiring for the vacant professional position; subsequent delays in completing personnel paperwork significantly delayed installation of the new director, and other changes.

Incidentally, a professional staff position at SCNS has not been without its special compensations. For graduate students who have completed their residency requirements full-time employment has been possible at SCNS while they worked on their dissertations. This has proven beneficial to the first director and all three professional staff members employed in August 1981. It might also be noticed that these same four persons had spouses who worked in professional, technical or graduate student positions. In their immediate past, some of the staff felt a financial need to work at part-time jobs doing everything from computer programming, to editing or typing dissertations, to selling Shakley products. Such activities are legitimate, of course, as long as they are carried on outside of normal working hours. Obviously these part-time jobs are/were carried on to augment the monthly income from DOE. Tallahassee, with its several postsecondary institutions and state government offices, provides a number of opportunities for full-time or part-time work unlike most other cities its size.

The four professional staff members, excluding the director, each serve as a coordinator for a set of the 150 discipline task forces. Each coordinator helps a task force organize itself; compiles reference and orientation materials; facilitates communication among the university and community college members; analyzes all institutional and faculty requests to change the discipline taxonomy or course inventory; clarifies these requests by discussing them with institutional liaison officers and task force members; helps to organize meetings of the task force and set its agenda; codes data entries for the course inventory and discipline taxonomy; uses a computer terminal and SCNS software to enter data and search the files; compiles reports of transactions, and so on. Accomplishment of these tasks constitutes a large portion of the effort required to maintain the system and keep it current.

The work of the professional staff in maintaining the course inventory requires them to develop a variety of complex skills. The former assistant director of SCNS suggested the following characteristics. A staff member who serves as a discipline task force coordinator requires: a knowledge of college curricula, an understanding of a discipline's taxonomy (and its peculiarities), a systematic approach to making technical decisions, an ability to relate pleasantly with a large and diversified group of faculty and institutional administrators, and the ability to clearly communicate technical procedures and instructions which can aid the faculty committee members in achievement of their tasks. A staff coordinator needs to have obtained a broadly based college education and probably an advanced degree in some professional field like Higher Education or Educational Research because (s)he must work with faculty from many disciplines. A highly motivated person with some analytic ability from other fields could learn the system, but it may take them longer.

With experience, knowledge and understanding, a staff coordinator must be able to make distinctions between rigidly adhering to the general logic and procedures of the SCNS and being flexible; doing the latter means knowing when to accept a local adaptation made to the system, i.e., when it does not jeopardize the basic principles of the SCNS. A staff member needs to learn early that although neatness and completeness count when using computerized recordkeeping, a neat and complete transaction form submitted by an institution is not sufficient for an entry to be made into its course inventory. A staff coordinator cannot be effective and maintain the quality of the data base by accepting without questioning the changes the institutions propose to their course inventories.

The staff handle a diversity of transactions. The most common are recorded on change forms. However, a coordinator needs to make certain that the course to be changed is actually in the course inventory. When no course is found, a complete check has to be run of the computer and office files, the institutional liaison officer contacted and a new course proposal obtained. Sometimes course changes are forwarded by liaison officers without them knowing that the course in not in the SCNS course inventory. Sometimes course changes arrive without the proper laboratory suffix (L for lecture, or C for combined lab and lecture). This condition often has to be double checked with both a liaison officer and a faculty member to see if the lab has been dropped or combined. A request for a change of a course number within the same prefix or movement of it to a different prefix needs to be checked to make sure the subject matter of the new taxonomic location actually relates to the changed subject matter of the course. The staff coordinator may have to recommend a different prefix, number or other code which could be more appropriate in light of the syllabus and other information provided. A task force chairperson or even the entire task force might have to meet to resolve such matters.

A liaison officer may call any of the SCNS staff coordinators to ask if a particular course number is available. Sometimes so many key changes may be proposed to so many courses at an institution they will be sent to SCNS without any recommended new numbers or prefixes. This is often the case when an institution is creating a new program; assignment of new numbers requires extensive research through the taxonomy, questioning of a liaison officer or a department chairperson, and then delivery of the course proposals to a discipline task force chairperson. An experienced staff coordinator requires much less time and effort to collect the necessary information and resolve any problematic situations.

The professional judgment required of staff coordinators enables them to quickly analyze requests for transactions to change or add new courses. Even the most obvious items requested to be changed--credit hours, local course title, and first numerical digit--may be considered as routine changes. But, when the magnitude of change is substantial, indicating that in effect a new course is being created, then the changes must be reviewed critically. A clear understanding about the boundaries of the knowledge in particular courses is especially helpful.

The staff coordinators operate in an information fishbowl, because everything they do enters the course inventory, taxonomy and profiles. If they make an arbitrary decision, with or without consultation with anyone, their handiwork will be visible to every institutional liaison officer and every discipline task force member.* Careful attention to detail is essential and a willingness to correct old mistakes is demanded of staff coordinators if a high quality course inventory is to be maintained. Clear communication with everyone involved is essential at all times.

Another major staff effort has been the organizing of Discipline Conferences. A coordinator works with a task force to clarify a persistent set of problems, such as dual level courses, i.e., the same course listed at different institutions as both lower and upper division undergraduate, or as upper division and graduate. Also of interest are the cases in which an extraordinary percent of unique courses is found in a discipline, or when a discipline faculty representative is invited from every public or private institution in Florida, even if the private ones are not participating in the SCNS. These meetings became important for three principal reasons: they have provided a forum in which statewide curricular issues may be clarified, such as which lower level courses can be agreed upon as appropriate introductions to a discipline or major field at the upper division. Secondly, the conferences have encouraged the building of a network of postsecondary teachers and scholars within the attendance and transfer regions of the state. Third, they provide a setting in which the System can be explained and misunderstandings corrected, of which there are still a substantial number. The conferences also enable the faculty representatives who are not task force members, to identify the SCNS discipline coordinator and the faculty who equate courses; everyone learns who to contact for additional information. The chairperson of the conference may be the chairperson of the task force; the members of the task force serve as discussion leaders for the smaller group sessions during the conference. A discipline's conference is expected to occur about every 3-5 years; the first conferences were made possible when the Florida Senate and House appropriated travel funds for them.

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*As mentioned in the description of task force operations (II A. above), one staff professional was removed as a coordinator for two disciplines; a third task force chair complained about this person. And, two agency staff persons stated that this person was a troublemaker. These events occurred over several years, some recently. Personality conflicts are indeed uncommon, but do become evident among a small staff. Perhaps the wonder is that they have not occurred more often given the number of persons and variety of temperaments each staff coordinator must work with. Obviously, a person with a rigid personality would hardly be a desirable staff person at SCNS.

To insure that sufficient background data and information are available during both the task force planning sessions and the conference, an indepth analysis of the discipline course inventory is prepared. In the past a faculty consultant has been hired on a temporary basis to conduct these analyses and prepare the reports which are titled Discipline Analysis Working Papers. In the past several years 15 or more discipline or professional fields of study have been analyzed; six discipline conferences were held in the years 1978-79 and 1979-80. Several of these papers became the basis for extensive work by their task forces when their members did not feel they were ready for a statewide discipline conference. Conferences were held for Chemistry and Physics in the first year; Anthropology, Psychology, Social Work and Sociology conferences were conducted the second year. None were scheduled during 1980-81 because the universities were converting their courses to a semester calendar. However, at least one major discipline, English, redesigned its taxonomy and made the changes to coincide with the calendar conversions; the changes were undertaken without a discipline conference.

The institutional persons most regularly transacting or consulting with the SCNS professional staff are the liaison officers. In a series of telephone interviews and written responses from about 60 percent of the liaison officers, all indicated they received excellent service and cooperation from the staff. Most indicated through repetition of remarks and with a variety of terms that they genuinely appreciated the excellent relations they had with the SCNS staff. This was said even though many respondents reported they had had some sticky cases in which an issue had to be referred to a task force for a final decision or extensive negotiations had to be carried out before a solution was reached. More about the findings from these interviews will be presented in Chapter VI.

The professional staff rely heavily upon the support and clerical staff to keep records, compile data, prepare correspondence, type tables and manuscripts and even enter course data into the SCNS course inventory, although the staff do much of the latter themselves. The senior secretary has been with the SCNS for many years; the second secretary has been with SCNS for several years and was able to fill in for the senior woman when she took a maternity leave. However, the third and entry-level clerk-typist position has had a very high turnover. Whether anything can be done to improve the pay situation, as an inducement for the desired persons to stay on, seems to be a problem of employment in State government. The secretarial-clerical staff have demonstrated an enormous capacity for a wide variety of high quality detail work. In addition to keeping rosters of task force members, liaison members, agency and state officials, there is an extensive correspondence with these persons, compilation of many documents, printouts, etc., typing of analytical tables and formal report manuscripts, voluminous mailouts and reproductions *ad infinitum*. The quality of work has been high for many years, with much independent effort undertaken by the staff after a task has been assigned. The writer has been an observer or beneficiary of the productive and creative efforts of this staff since 1974. The staff probably deserve a World War II *E* award for efficiency.

Finally, whenever a discussion takes place about SCNS or its staff, the name of the first director almost always comes to mind. He began working with course numbering as a part-time employee with the Division of Community Colleges back in 1972. He had earlier served in a variety of private universities as director of student counseling, resident hall director, dean of students or in other student related positions. Upon undertaking a Ph.D. in the Higher Education Department at FSU he was awarded a fellowship through a Kellogg Foundation Grant for a Community College Leadership program; this led to his part-time employment, then to head of the SCNS project; these early times were when the BOR chancellor, university presidents and vice presidents joined the community college presidents in support of the project.

The first director of the SCNS stayed with the program through thick and thin. His persistence, logical turn of mind, forthrightness, energy and total dedication to it made it whatever success could be claimed for SCNS. The early efforts and vicissitudes faced by the director in implementing SCNS were recounted in detail in the Congressional Record (Vol. 122, No. 46, March 30, 1976, H2564-H2566), in an article submitted by U.S. Congressman Bill Chappell of Ocala, Florida. The fact that Florida is the only state in the U.S. with this kind of system, one also in which faculty are able to exercise such a large role in its operation, is testimony to the efforts of the director, the professional and clerical staff, the continuing support of the Florida Legislature and the cooperation of many other agency and institutional officials.

It is hard to ignore the fact that the maximum effort made by the first director for 10 years earned him a variety of criticism as well as accolades. In the early years the director was treated to a regular barrage of abuse and criticism; in 1980-81 the writer heard or read that he was too narrowly focused (e.g., interpreting the law always in favor of SCNS); too broadly focuesd (e.g., wanting to move into areas not a part of the specific mission of SCNS, such as resolving issues about kinds of credit); that he was argumentative and authoritarian (e.g., too tough and single-minded in the defense of the SCNS); and that he appeared to be "too good" (e.g., he was called, only partly in jest, St. Michael, because of his alleged unwillingness to admit any mistakes or for being unwilling to consider that other persons may be "right" but were without the legislative clout of the director). The critics usually prefaced or followed their remarks with an admission that without Dr. DeCarlo the SCNS would have failed a long time ago.

Computer Operations

Another very important aspect of the SCNS is its computerized data bases. These are the course inventory, the taxonomies for each discipline and the profiles for each classified course. As the technology has improved for entering and accessing data, the SCNS has been able to adapt and make substantial use of it. In the years prior to the university course conversion workload, 1978-79 and 1979-80, the SCNS learned from the automatic audit reports of computer transactions to the course inventory that about 10,000 changes (additions, deletions, modifications) occurred each year. The ability of the SCNS to respond in a timely manner to this volume of change in a basic file of 57,000 records is made possible by the use of the computer. Without the new technology of random access and data input from remote terminals in the SCNS offices to their files at the Northwest Regional Data Center (on the campus of FSU), it appears unlikely that the SCNS staff could have entered the 20,000 or more course changes in 1980-81 resulting from university course conversions. Because no coordinated effort was made by the universities or the BOR staff to equate converted courses among the universities or between the community college and the universities, the SCNS is likely to face an increased number of course changes for several years to come. That is, after conversion and beginning in 1981-82, the SCNS will have to convene task forces to review and determine the equivalency of the newly converted university courses with those in existence now at the community colleges. A preliminary review of the university conversions seems to indicate an increase of unique (one-of-a-kind) undergarduate courses from 40 to 60 percent. The efforts of the task forces to re-equate courses may take two or three years to finalize, judging by the initial experience of building a statewide course inventory. Note also that as a result of some wholesale curriculum revision occurring during the conversion of university courses, the community colleges are highly likely to respond with many course changes. They are likely to do this as a serious effort to insure that their transfer students are able to take introductory courses which are equivalent to those offered and required at the lower division of the four-year universities. Thus, the course inventory could easily be in a state of flux for three years. Again, the advanced computer technology makes it possible for the SCNS staff to respond to this heavier than traditional workload.

The taxonomy file has recently been converted to random access, which permits searching and display of discipline classification systems at the four terminals in the SCNS offices. As with the course inventory file, it is now possible to enter changes in any part of the 156 taxonomies and confirm the changes in seconds. This compares with the first generation technology in which a change was coded on a form, delivered to the Knott Data Center, which converted the data to punched cards, then integrated the information into the file and subsequently produced a paper output with the revised taxonomy; after this new record was delivered back to SCNS the record had to be checked for accuracy, and any data errors corrected in a second round.

Changes in the discipline taxonomies and the location of courses within them are a normal part of the activities at SCNS. The expansion of knowledge leads to new courses, to new subfields in a discipline and even to new disciplines. In addition, changes result from faculty dissatisfaction with the taxonomy: it may appear to be out of agreement with the recognized specializations in the discipline; it may not adequately differentiate between the descriptive-introductory and more comceptually-theoretic advanced levels of knowledge; it may be too detailed with too many unique courses; or it may have been structured to represent the personal-professoinal interests and biases of the discipline-department faculty at a particular institution. Reconstitution of a task force whose members have left (moved away, retired, died) often leads to a "second generation" review of the taxonomy by the new task force. It appears that this process is likely to occur every 3-5 years. As indicated above, the organization of statewide discipline conferences has been a response to these tendencies.

Currently the discipline task forces on Sociology, Criminology, and Accounting are in the process of revising their taxonomies. Recently the areas of English, Human

Services and Nursing revised their classification systems. A few other areas are considering a revision of one or more prefixes.

The remote access and data input capability of the computer terminal enhances greatly the ability of SCNS staff to maintain high quality data bases because each staff coordinator is responsible for entering new or changed entries in the discipline data bases for which they are responsible. Another benefit from use of this technology is that the institutions may directly access the course inventory and discipline taxonomies. It should be noted that access to the SCNS files does not mean that users can alter such files. For example, at least five universities use the Northwest Regional Data Center (NWRDC) for their administrative records, which makes it a simple matter for them to access the SCNS data files. Four of the remaining universities are now part of a computer newwork which enables them to move through their usual computing center to NWRDC. Community colleges, high schools or anyone else who has an account with NWRDC, the appropriate kind of terminal, a security password and an understanding of the programs available can access the on-line SCNS data files. At present time it appears that Florida State University may be the only institution using remote terminals to access the SCNS files, although FAMU and FAU has done so in the past. Because the NWRDC has installed a new security system which restricts access only to preregistered users, some of the universities (e.g., FAMU and FSU) have just discovered they need information about the security system at NWRDC in order to access the SCNS files. Apparently no community colleges have used direct access to SCNS data files at NWRDC.

The cost of building and operating the computerized data system has varied from year to year. The operating costs for SCNS staff accessing and changing course records was about $15,000 for 1980-81. Contracts for system services and programming have been large in several years past as basic files, accessing routines, and sundry reports have been programmed. For 1980-81 this cost was $2070. Leasing of four display terminals and a controller that year cost about $3,000. With the Knott Data Center once again to provide systems services, some costs may change. The third part of the SCNS data base, the course profiles, will probably be the next one to be converted to remote access with a direct input capability; this will enable the staff to keep the profiles really up-to-date. The new director is also asking KDC to develop and/or adapt some older ad hoc SCNS programs so they will be available on a regular basis to generate comparability reports and other such analytical outputs.

In the past, one of the professional staff persons has had sufficient training or experience to be able to write computer programs on-line. Staff turnover has eliminated this talent, although one such person returned on a temporary basis in summer 1981 to help produce a large number of formerly regular outputs from SCNS. The now irregular character of these outputs has resulted from both a shortage of technical staff and the university course conversions. The return of the former staff member in summer 1981 rather clearly demonstrated the need SCNS had for the analytic and programming skills this person possessed.

It seems apparent that the analytic reports generated from the course inventory files represent the kinds of information desired by state officials who have supported the SCNS. These data compilations appear to represent to these officials some of the accountability data which they desired but have not been able to obtain. These data outputs are very different from those for use in uniformly prefixing and numbering courses or for the counseling of future transfer students. The nature and variety of data outputs are described in Chapter IV.

Summary

Most of the important functions related to SCNS, especially in relation to its institutional data bases, are performed by volunteers. The guidelines developed by the first director of SCNS provide a description of the desired procedures to be followed and the roles to be performed by these 700 or more volunteers. There is extensive cooperation although the director found it impossible to mobilize it among the university officials before or during calendar conversion. As a result, over 22,000 courses now appear in the SCNS course inventory which have not been judged by faculty committees to be unique or equivalent, a situtation contrary to law.

It seems clear that SCNS is one of the several programs and arrangements created to enhance articulation between the community colleges and universities. Others are the Articulation Coordinating Committee, bilateral and regional cooperation agreements, and the building of college facilities adjacent to a university, and vice versa.

The budget of SCNS can be seen in a variety of comparative lights; if transfer students were levied a surcharge to fund the central office operation it would cost $1.83 per student for each of two semesters.

The staff at SCNS was stable at the top of the rank and pay scale for both professional and support staff. Turnover of staff is a serious problem; the absence of a persons with computer skills would appear to deter SCNS from realizing its full analytical potential. However, new services to be provided by Knott Data Center may help fill in the gap with consultants.

The internal disagreements among the professional staff had the potential of reducing SCNS to a non-analytic clerical operation; however, a new beginning is at hand and the necessary harmony has been restored such that SCNS can retain or regain its reputation as a highly productive state agency.

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CHAPTER III

THE LARGER ISSUES OF AUTHORITY AND LEGITIMACY

The purpose of this chapter is to identify some ideas and concepts which help to explain the antagonistic "information" relationships between state and local governments including SCNS and postsecondary institutions. These ideas enable the evaluation study to focus on some Florida government characteristics which seem to have been both a strength and a weakness for SCNS. The important values, attitudes and concerns about higher education which are outlined in the cases described below point to a substantial shift in Florida public policy. Most of these concerns also seem to underlie the variety of attitudes, pro and con, toward SCNS. By the very nature of this analysis, the state and institutional politics of higher education become evident. One of the issues here is whether SCNS, as a state agency, can be expected to function effectively when contrary policy pressures are building, one for increased decentralization of authority to institutions, the other for more centralized planning for all postsecondary education. In Florida, this issue surfaced during the 1978 constitutional convention (although none of its proposals passed); later, decentralization was enacted for the universities by the Legislature in 1979. The decentralization proposals from Washington in 1981-82 for a new federalism appear to make Florida's recent policy changes the anticipation of a much larger effort to reassess government authority and responsibility at all levels. It should be noted that the federal government has had extensive problems with the states over particular programs and information issues; many of these have led to or paralleled the difficulties the 50 states have had with counties and municipalities, school districts and public colleges and universities. Most of these problems fall into the field of intergovernmental relations. A few ideas from this field are presented below; they relate to the analysis of SCNS as a state information activity.

A. State Government and Information Needs

Activities and tasks performed in the SCNS central office are shaped by the State's Rules and standard operating procedures of the Department of Education, of which it is a part; of the Department of Administration (DOA) and the Governor's education budget staff; of the DOA State personnel office and other executive agencies; and by the Legislature. The governmental rules and procedures are designed in the typical 20th century state bureaucratic style. They are designed so a set of general rules may apply to a varied set of similar cases. They also rest strongly on hierarchical and central control principles. Veto power through control of expenditurse and facilitative power through budget approval tend to accrue at each higher level in the bureaucracy; these powers also accrue to the organizational units closest to the office of the governor, or to those appointed positions nearest the offices of the other elected state officials i.e., those who comprise the cabinet and the State Board of Education in Florida.

Among the 50 states a staff agency, or a group such as the central staff to an elected state official, is traditionally defined to provide information and assistance to some official. Typically, staff assistants are asked to obtain data from state operating agencies or local institutions and then to organize that data. Both executive and legislative staffs perform these evaluation, review and oversight functions. Preparing budget requests and conducting program or performance reviews may constitute much of the activities. The staffs of statewide boards governing or coordinating postsecondary education institutions or systems also perform these functions. However, these boards and staffs are usually removed one or two steps from the hurly-burly of state elective politics.

This traditional staff model becomes complicated when a staff begins to function as if part of an operating agency, especially if an agency does not shift to a location in state government which has responsibility for operating programs. The situation becomes further clouded when the legislature or some executive department decides that state agencies should divest themselves of responsibility for operating programs. The movement to create regional program offices within a state is an example of this policy change. It is rationalized on two grounds: "local program administration is best," and "the state government should be a policy development and planning agency and serve as an equalizer of resources to all areas and groups in the state." Note that these two values are compatible, but that both are challenged when state staff agencies require that regular operating reports and data files must be sent to them by regional agencies and local institutions.

The need of state government executive and legislative officials for information and data has spurred the creation of a variety of additional staff agencies. The pervasiveness of the modern computer and the creation of information networks between them has in turn made it doubly necessary to standardize the definitions of data elements which are to be used in any statewide reports. Common or standard data elements are often seen as necessary across all agencies in a state government. When some data must be obtained from regional operating agencies and local public institutions, then the demand for standardization moves out from state government to the local units. Interagency, agency-institution and inter-institutional committees are typically created to work through the problems of defining standard data elements.

The head of every state agency and operating unit has a need for management data and information. The demands for uniform reporting of program activities and expenditures has been a perennial problem of administrators for generations. The need seems to grow in three stages. It has resulted from the need to build legislative budget requests, which originally relied upon objects of expenditure, now called inputs of programs, e.g., salaries of individuals and supplies and expenses. The need grew when demands were made for data related to units of workload and services provided per dollar of taxes expended. Growth continued further when a third set of demands included data which would show the dollar per output unit, thereby relating dollars to achievement of program goals and objectives. At each of growth stages two and three, more data and more complex analyses from the data were demanded. Again, it is the availability of modern information technology which makes all of this possible. And, as state legislatures built their own permanent staffs to double-check the funding requests and the justifications for programs, the accountability movement in state government emerged. It arose in large part from the more complex information concepts designed at stage three, from the expansion of the state into many new service areas, and from a general belief that public programs should continue to function if they met a high priority public need at a reasonable cost. The development and use of high quality data resources and analytic techniques by all units of government has become the _sine_ _qua_ _non_ of the accountability movement. This is not to say that all policy development and program funding arises out of a rational analytic process, but it does suggest that public demand pressures alone are no longer the only justification for establishing or continuing a government program. At this writing, it is fair to say that the accountability movement has been institutionalized in Florida, particularly in education.

One of the consequences of state officials demanding more uniform accountability data is that it changes the character of, and the perceptions of, staff offices which collect information. As their functions and activities have grown, their technical support operations have become institutionalized as management information system (MIS) offices. As they have changed from being data collectors and data processors to definers of data elements and providers of unique analytic reports, they appear to have become something more than just a staff agency. They now loom large as a control agency which can compel institutions to use the state's uniform data element definitions; they also may function more like state auditors than simple data collectors.

In many instances, the attempt(s) by state government to impose or concensually develop standard data definitions has spawned an additional number of data bases and data elements. The typical lack of success by a state in implementing a set of standard data elements on the first attempt often stimulates a legislative reaction. Information policy changes often occur when legislative staffs fear that aggregation of data from many state agencies and local institutions (even when using standard reporting) conceals more than it reveals. The immediate reaction usually has led to additional data collection procedures. The first of these often arise from a request that the local institutions submit print copies of some detailed data files in addition to their reports of aggregated data. Second, are the efforts to construct state-level information collection systems which reach down to an organizational level at which program services are delivered within local institutions; the purpose of this upward-downward movement is to circumvent--to go around, beyond, or below--the points at which institutional administrators would normally screen data to be reported up the authority or information hierarchy. Third, would be establishment of a direct linkage to an agency's operating files which is possible through terminal access to computer files; such access would permit state agency and legislative staff analysts to tap directly in to the transaction recording data bases of local institutions, without involvement of local administrators or information system technicians. In several ways, the SCNS appears to be a result of the second strategy, especially when SCNS is seen from the viewpoint of some State legislators or their committee staff directors. However, it also provides the institutions with direct access to its computerized data bases, an unusual reversal of the third stage strategy mentioned.

This de facto power to compel adherence to a set of information definitions gives the state MIS offices the appearance of being operating agencies. When the standardization of data elements expands from budget entities to attempts at uniformly defining program characteristics at the local level, then a fundamental contradiction is sensed at the local level. Is the government best which is closest to the people? the municipality? the school district? the school house? the college or university? the academic department? If the answer is "yes," to any of these questions, then local administrators often assert that the state must absolutely justify an overwhelming need to impose standards on such institutional minutia as data elements.

When a college or university opposes the new centralized information systems, the local response usually has two dimensions: first are statements that the administrators are hired to run the institution (along with the aid of the faculty, the latter would add) and that they know best what is required for it to provide effectively the services needed by its clientele groups. Second would be the assertion that compliance with external regulation of minutia impairs the ability of the institution to efficiently use its public resources because it must devote some of them to the information requirements of the state, almost all of which make no contribution to the administration or management of the institution. Of course, if the state imposes a penalty for non-compliance which, when imposed, would reduce the annual appropriation, then the institution might acquiesce formalistically to avoid the penalty. Especially unjust would be such a penalty, it is said, when the information required by the state may not be an aid to the efficient administration of the institution. Of course, the state may reply that the cost of compliance is the price to be paid for the public subsidy the local institution receives. The next question then becomes one of determining the most favorable cost of compliance to an appropriation benefit ratio. Compliance without a fuss is a viable alternative for some institutions, but not so frequent that state staff analysts rely upon it.

A major national study of cost analysis in higher education, which included a variety of institutional case studies, indicated that in no instances did it find that the cost data generated were an aid to administering the institutions. Upon hearing of this report, some Florida institutional officials not in the study strongly agreed with it. However, some Florida officials and legislative staff members reacted to these reports by wondering if college and university administrators were sufficiently trained or knowledgeable enough to know how to effectively use cost data in the administration of their institutions. Incidentally, the sophisticated faculty response to suggestions about the benefits of cost analyses usually begins with an assertion that because public colleges are not profit-making enterprises, and do not set tuition according to the costs of education, there does not appear to be any necessary reasons for cost studies except to comply with the orders of state officials.

B. Accountability and Control

In the last three regular sessions of the Florida Legislature, the issues of accountability to the State versus local control and management of the universities was widely discussed. In 1979, it became clear that the leaders of the House of Representatives supported a strong executive management model of "hold the president accountable and fire him if he doesn't do well." They also unsuccessfully advocated single boards of trustees for each university, like those at each of the 28 community colleges. In substantial contrast was the view of the Senate leadership which held that detailed instructions and requirements had to be specified for the universities in the appropriations bill because the universities would not otherwise act accountably. Further, Senate leaders charged that the data provided by the universities were incomplete, unreliable and needed all kinds of supporting and confirming information. This, of course, represented the maximum case made for state domination of an institution's management information system, i.e., for a state accountability programs. (It was asserted in 1981 on the floor of the Senate that it had not agreed to more funds for education because of the unwillingness of institutional officials to accept and comply with accountability requirements.) In the end, it was the House version of institutional responsibility in 1979 which won out for the universities. The 1979 Legislature in HB 1689 devolved substantial powers from the State's Board of Regents to the individual universities. In the next two sessions, the Senate joined this movement by divesting the BOR of more programs, responsibilities and staff positions. Observers might differ as to whether these actions were more pro-institution or anti-BOR, or about the precise mix of these and other initiatives. Nevertheless, when it is noticed that many of the standard MIS functions and the BOR internal auditors have been returned to the control of the universities, the consequences are clear: much is being done to enhance institutional authority, autonomy and responsibility. It should be recognized that the universities are currently becoming more independent like the community colleges, although the universities are still considered to be state agencies.

The role of the State as a coordinator, planner, and equalizer has been expanded during this period by the creation of a statewide Community College Coordinating Board for the 28 community colleges. Capping these two boards (BOR and SCCCB) for the coordination of higher education statewide is the new statutory Postsecondary Education Planning Commission. It is an advisory body to the State Board of Education, which is chaired by an education governor: Bob Graham served several years as chairman of the Senate Education Committee and was one of the earliest sponsors of SCNS. The Planning Commission's small staff is lodged in the Department of Education for logistical support. Another ex-Senator who was chairman of the Education Committee after Graham and, before retirement, president of the Senate, (Philip Lewis), is now a member of the Planning Commission. He, too, is a very strong supporter of SCNS. The Commission is charged with preparing a state master plan for the public sector colleges, universities and postsecondary vocational programs. Thus, the role of the State has been further defined in relation to the institutions. Because the Commission must rely upon the authority of the State Board of Education to obtain information from the three state systems (of community colleges, vocational centers and universities), or go directly to the 65 separate postsecondary organizations, many of the old information problems are expected to persist and probably grow in complexity.

C. Support and Authority for SCNS

Originally, it appeared that common course numbering was a particular solution to several particular but different problems; they were the problems perceived by the staffs of the Division of Community Colleges and the Board of Regents. The head of each division endorsed the project and subsequently the four interinstitutional councils of academic vice presidents/deans and the 37 presidents also supported SCNS. However, university support began to weaken when the faculty began to voice the opinion that the State was unnecessarily interfering in the internal affairs of their departments, college, etc. The irony of this situation was that the director of SCNS, from around 1971, began involving faculty in the state-level work of identifying common and unique courses; this was at least four years before the Legislature enacted language requiring that faculty committees be used in the maintenance of the System. The faculty, however, then and now, still seem to feel that the SCNS is an illegitimate intervention by the State in university (and some college's) affairs. With changes in leadership and staff at the BOR in the middle 1970's, at the time when SCNS was being entered in the catalogs, the remaining support there for SCNS begain to dissipate. Many of the original university registrars, community college leaders and DOE staff continued their support by implementing and endorsing the System. Several registrars at the universities reported that their academic vice-presidents did not support the SCNS, but avoided interfering with its implementation or promotion of its use within their institutions.

What kept the SCNS going was the effort of the SCNS staff, its community college supporters, and the Florida Legislature. The latter placed a variety of implementation instructions in the annual appropriations bill for each of five years; it specifically declared that it was a legislative priority that the SCNS course inventory be completed by all public colleges and universities. The most direct and threatening statement supporting this goal came in the Spring of 1975.

> The completion of the common course numbering system and the development of a plan for its maintenance are declared to be high priority of the Legislature. The Chancellor and the Board of Regents are directed to provide support and allocate manpower resources within their staff and the staffs of the universities as required to complete the system. Unless the developmental phase of the common course numbering system related to the State University System is completed by no later than the beginning of the fourth quarter of 1975-76 fiscal year, the Department of Administration shall withhold 20% of the fourth quarter [funds] until such time as the developmental phase is completed.

To say the least, this language got everybody's attention. (The penalty was never invoked as a result of "substantial" completion.) The Senator who proposed this language originally suggested withholding 100%, but then agreed that the penalty would be too severe and accepted an amendment for a 20% penalty instead. This Senator and several others have supported SCNS and many other proposals related to information systems, use of computers, networking of them, and their use in State government and education in particular. They were also highly supportive of having Legislative staff perform data analyses and policy studies for use during the Legislative process. The present Governor of Florida was one of the earliest leaders of this movement; Senator Phil Lewis was the sponsor of the penalty proposal.

The commitment of the Legislature to SCNS was sorely tested in the Summer and Fall of 1977 and again in later years. The 1977 test of the legitimacy of SCNS might be called the catalog case. Its particular issues and related cases illustrate well the need for a specific set of official rules for SCNS. The case began with a joint effort by the director of SCNS working with the Senate Education and Appropriations Committee staff members to draft instructional provisions for the 1977 appropriations bill which would speed-up and bring to closure the implementation phase of SCNS. In its earlier developmental phase, institutional courses were identified and inventoried. Faculty task forces created classification systems for their disciplines and then sorted all the courses into a unique or common statewide prefix and number; the institutions were then sent the course lists to review, correct and return to the task forces (through SCNS), a procedure which was repeated two or three times for each discipline. During the implementation phase, the new prefixes and numbers had to be printed in the catalogs, counseling manuals and on student records. (Incidentally, it was discovered during this study that one community college had not made a substantial implementation conversion until Spring 1981!)

The persons working on the new instructions about SCNS for the 1977 Appropriations Act began with the old statement that the completion of common course numbering was a high priority of the Legislature; they then went on to emphasize that the conversion of all data systems were to be completed by 1978-79. It ended by stating: "Existing institutional course prefixes and numbers shall no longer be included in institutional catalogs, but shall be retired to history files." Phase three, the next step for the (SCNS) project after this would be the time when maintenance of the system was of primary concern, which was expected to begin about July 1979 or sooner.

This plan and the instructions being drafted in the late winter of 1977 were intended for an outcome in fall of 1978. The work was being done early enough so that the university administrators in charge of catalog preparation would have ample warning and planning time. December 1977 would be a key time, and for some universities, the last time to change the copy for their 1978-79 catalogs before they were sent to the printers; nothing could be done about the 1977-78 catalog because it was already being printed, bound or delivered. The 1977-78 catalogs contained both the old and new course numbers, with the old ones placed in parentheses to the right of the new ones. This arrangement was also dictated by language in an earlier Appropriations Act.

By 1978-79, the transfer students from the community colleges would have little knowledge or awareness of anything but the new numbers. The old course numbers would continue to appear on all SCNS course inventory listings under the new classified numbers; these listings were the first regular output from SCNS and began long before 1975. The inventories were compiled and distributed to each college or university at least annually, and sometimes about every three months. Thus, each institution was (and is) provided a continually updated version of its course inventory with both old and new course numbers listed.

Reaction to the requirement to retire or exclude the old course numbers began about six weeks after the Legislative session ended in early June. At this time the vice-president for academic affairs at FSU suggested to the nine member university council of academic vice-presidents that a more reasonable time, such as two years, should be permitted before the old numbers were discontinued. The BOR academic vice-chancellor responded that he would convey this request to the director of SCNS. Again, on September 13th, at another meeting of this council, the academic vice-presidents expressed themselves on this issue. This time a motion was passed demanding that ". . . SUS institutions use old course numbers in parentheses after new course numbers until two years after new numbers are approved." The FSU vice-president this time pointed out that the resolution was in conflict with the Legislature's instructions. The academic vice-chancellor indicated he would consult with the chancellor and the "framers of the language" and attempt to get it changed in order to assist the universities in properly advising students. The academic vice-chancellor said later on in the meeting he would ask that this issue be raised at the next SCNS Policy Council meeting. On September 21st he sent a memorandum to the director of SCNS explaining that he had advised the university academic vice-presidents to continue listing the old course numbers in the catalogs, in direct controvention to the proviso language in the 1977 Appropriations Act. He stated he believed that without the old course numbers "We will be doing irreparable harm to the student in the transfer process and in the course evaluation process." Later on he said, "We are concerned with following the law but not to the extent that it would do irreparable harm to the very people for whom the law is designed as a help."

In another letter of the same date, also sent by the academic vice-chancellor to the director of SCNS, a number of questions were listed which he said should be considered at the next SCNS Policy Council meeting. The closing paragraph of the letter stated the writer's expectations about the SCNS Policy Council:

> Let's be sure the Policy Council meets regularly to set direction and resolve conflicts. I'm not about to let the singular decision-making process [sic], without Policy Council ratification on important issues, grind higher education into the ground in Florida. There is too much emphasis on form and not upon substance--witness the letter of intent language on "retirement" of old numbers--I still care very much about students and having that language is a sad sad example of forgetting about the need for two years to have historical documentation for the convenience of evaluating transcripts as a service for students.

There were many other memoranda, meetings and pressures mobilized in this case, but the main points have all been stated. Subsequently, Senator Philip Lewis, Chairman of the Senate Appropriations Committee, denied a formal request from the Commissioner of Education to suspend implementation of the instructions. He spoke and wrote that to give in would be to further delay full implementation of the SCNS.

The arguments presented by the academic vice-chancellor are important beyond the circumstances of the catalog case, including that his facts are incorrect in the last quotation. There is a clear assertion here that the legitimacy of any policy recommendations coming from SCNS is dependent upon its endorsement by the SCNS Policy Council. This is clearly an argument about form as well as governance: if the decision procedures followed are appropriate, then the substantive aspects of a decision are legitimate. This is, of course, the argument for majoritarianism in a democratic society when that society contains, and wants to tolerate, many divergent views about substantive policy issues. This same philosophy governs most collegial bodies in the United States. It is a powerful and compelling philosophy because so many persons endorse it in the Western World. However, to make it work in the SCNS, the Policy Council would have to require that its purposes and procedures--its essence--would have to be changed substantially.

The concern with one-person decision processes also raises the possibility of a concern with the process by which the old number "exclusion" policy was developed. That is, bilateral consultations between agency persons and legislative staff are often seen as illegitimate when those who will be affected are not included. This too is a principle of democracy, which has strong roots in our culture, and is based on the concept of fairness. But this concern is often grounded in a strong suspicion that legislative staff directors may be the persons who want a policy enacted, not the elected senator or representative. This argument--not often articulated in public--suggests that no matter how appropriate the procedusre are/were in the sovereign legislative body, its members may be under such strong control of the technicians, experts, politicians, or lobbyists, that even the procedural checks and balances of a two-house Legislature are no guarantee that the policies enacted will be "good." That is, the legitimacy of the procedures--the form--does not guarantee the wisdom of the product, a truism if ever there was one. Moreover, this argument takes us to the edge of an undemocratic precipice, for it suggests that majoritarianism doesn't necessarily work. If so, then a strategy for improving the policy development process and the quality of a proposal would seem to be necessary; for example, it could require some kind of proactive efforts, even deliberations, to work out needed policy compromises before they reach the sovereign body. A strong Policy Council may be one of those desirable proactive arrangements. Thus, the need for a Council of Faculty, as the law states, is and sould be a matter of substance, not form only.

The quotation above also contains another set of statements which challenge the legitimacy of the Legislature's instructions; the basic issue might be titled "reverse effects." These focus on the possibility that the results to be derived from the policy of exclusion of old numbers will in fact be the opposite and even be detrimental to the intended beneficiaries. The writer of the letter is so certain of this potential outcome that he is willing to act contrary to the instructions of a sovereign body, the State Legislature. The argument here is that the policy is so bad that it must be considered illegitimate, in spite of the fact that the democratic procedures of a sovereign body, the Legislature, were followed in the enactment of the policy. This is, of course, a moral argument for civil disobedience.

This conclusion follows from an analysis which was conducted as if the statements were based on honest and sincere beliefs even though they could be interpreted as part of the rhetoric in the continuing battle between state (SCNS) and an agent of the universities. (It should be noted here that no one contacted in this study had heard or seen any evidence showing harm being done to anyone over the catalog issue; instead, the study revealed that the SCNS is most likely to be helpful to many persons, for which there is substantial evidence--see Chapter V.)

The second issue, "reverse effects," appeared again in February 1978, but was without any taint of civil disobedience attached to it. The situation this time emerged when the faculty of one university complained bitterly about SCNS to the Commissioner of Education, and to an influential state senator and other state officials. The complaints about the SCNS were so numerous and strident that then Senator Buddy MacKay arranged for a special public hearing so the alleged problems could be aired and corrective policy developed to improve SCNS. However, after an hour and a half of testimony at the hearing it became apparent to Senator MacKay that the complaining faculty were poorly informed about the principles, operations and purposes of SCNS; he then restated the purpose of the hearing to be one at which some of the misunderstandings about SCNS could be cleared up.

The "reverse effects" argument surfaced at this hearing when a faculty member asserted that graduates of Florida universities would be penalized for having transcripts with three letter alpha prefixes and four digit numbers, unlike those from almost all other colleges and universities in the United States. He stated that he had long counseled students seeking admission to medical school and that the SCNS designators would obstruct, even pervent, serious consideration of Florida applicants to the best medical schools. The director of SCNS had seen this charge, or one like it, in the speaker's student newspaper some months earlier and had undertaken a survey of admission officers at the top professional schools in the United States. Both the preliminary and final survey results of these officials indicated that for someone to even take such an idea seriously was clearly absurd.

Apart from the factual error in this case is the charge that SCNS would not be of benefit to students, but instead would harm them. A correlary assertion made often by faculty at some four-year universities is that students should not be allowed to transfer course credit automatically for "my" courses because the students will have forever missed something important and unique. This assertion may be rigidly adhered to even after the complaining "expert" is told that his/her faculty peers decided that the evidence for uniqueness was not obvious when the courses were equated. In such instances, the person may accede, submit new evidence, or suggest that the peer review procedure was not appropriate because it did not contain the right persons on the task force, or in some other way was illegitimate.

Another legitimacy issue surfaced at the same public hearing, this time over the procedures used to build the discipline classification systems and to designate the courses within these structures of knowledge. The faculty member complaining about this process began his testimony with the charge that the data base was unreliable; the legitimacy issue could be inferred here because the task force was made up of peer faculty from the discipline. However, after lengthy discussion (and searching of SCNS records), it became clear that the faculty member, chairman of a task force, had attempted to develop a discipline taxonomy unilatterally. Later on it was revealed that his charge that the data base was unreliable was due to the task force not having sufficient information and having to use titles and course descriptions from the CATALOG; of course, this is what any ordinary admissions officer would use and what an overwhelming majority of faculty still use. His final example about the unreliability of the course inventory revealed some communications problems in his department. While the speaker was on vacation a colleague had been assigned the task of finding a SCNS course number and prefix for a course the speaker had proposed earlier. The colleague allegedly chose the wrong prefix or number, the course therefore was misclassified and thus, according to the speaker, the course inventory was unreliable. Only a few Senators stayed beyond this point at the public hearing.

It should be obvious that if the course inventory was incorrect and it was due to the procedures used by the faculty task force members, then the results could be illegitimate and likely to be harmful to students. Clearly this would be sufficient reason to terminate, scale down, or not push for full implementation of SCNS. At the hearing, Senator MacKay and other senators agreed that there was no question about SCNS being here to stay and enjoying the continuing support of the Legislature. Senator MacKay did comment that SCNS should be given a "sunset" review some time in the future to determine if it was still meeting a public need. Perhaps this report can be part of a self-study done in preparation for such review.

A third and final case which has legitimacy overtones came in August 1978. As a result of the apparent and extensive misunderstandings by faculty about SCNS, Senator MacKay proposed that travel funds be placed in the appropriations bill for SCNS so that faculty discipline representatives could come together and learn about SCNS, its operations, its plans, and its problems. The director of SCNS readily agreed to this arrangement; he explained to several persons that the matter of overlapping and duplicate courses could be addressed at these conferences, an objective which he had entered into the SCNS long range program plan some time earlier. The associate deputy commissioner endorsed Senator MacKay's idea and promised to see it brought to fruition.

Two months before the first conference, each institutional liaison officer was contacted to obtain the name of the discipline faculty representative it would send to the conference. The first conference was a success, but the second one almost died aborning because the university academic vice-presidents didn't want to send any representatives. They said the SCNS hadn't contacted them, which was true literally, for most of them used an associate academic vice-president as a liaison officer. One university vice-president said he had to be notified before faculty from his institution could go off to mess around with the student FTE's of his university; this referred, of course, to the different funding rates by student class level. A nasty confrontation occurred over the facts about who was notified, but the associate deputy commissioner said the conferences were going to go on because he had promised legislators that they would and that the funds were appropriated. To make the second conference take place on schedule, Senator MacKay almost had to demand of the chancellor (of BOR) that he call each university president to tell him to allow a faculty representative to attend the conference (which the chancellor did).

Again, in this situation as in the earlier two, it is apparent that the action of the state Legislature was not considered sufficiently legitimate to let SCNC carry out its assigned responsibilities; even the academic vice-president most opposed to faculty attending the conferences admitted that he knew the conference travel funds had been appropriated. However, it has to be noted that the academic vice-presidents were undoubtedly correct in being alarmed about the consequences of large scale faculty meetings. All one had to do to understand the concern of institutional administrators was to read the program reviews sponsored by the BOR; in their reports the out-of-state faculty consultants almost always indentified critical needs at each university which required more money to be spent on most aspects of every program reviewed. However, in this case the unilateral decision of each vice-president to tell the chosen faculty representative to not attend the discipline conference which was funded by legislative mandate again came very close to civil disobedience. Fortunately, no more of these challenges occured before the remaining conferences and they proceeded smoothly to 1980-81.

It must be emphasized that the university and BOR officials were exercising their assigned responsibilities in questioning the potential impact of the discipline conferences.

Furthermore, a number of BOR and university officials seriously questioned whether the substantive language in the Appropriations Act constituted statutory law; much of it was written by staff at the request of legislators on the Appropriations Committees. The portion which elaborated on legislative intent and then is printed with the Appropriations Act is called the letter of intent. The latter is thought of as the working details which have been agreed to by executive and legislative officials. Also, because the Appropriations Act is official and controlling for only one year (two at best), the proviso language has to be repeated each year or be incorporated into rules or statutes to continue to be effective. In sum, the substantive policy included in the Appropriations Act apparently was not as substantial as regular statutory enactments. This apparent perception of impermanence must have contributed to the willingness of so many higher education officials to directly challenge the proviso language about SCNS. Incidentally, the Florida Supreme Court has twice spoken negatively about policy appearing in this act in recent years.

From these three cases there should be no doubt about the locus of support and opposition to SCNS. The Department of Education has been facilitative and somewhat protective of SCNS and its director, but SCNS has not had a very high priority within the Department. Because SCNS has been bathed in controversy since its infancy, some state officials and legislative staff have shunned any connection with it. A recent staff director of the House Higher Education Committee said he avoided it, for it was like Uncle Remus' Tar Baby: once touched there was no way to get rid of it.

It was a House Education staff director in 1975 who drafted the current statutory language making SCNS a responsibility of the Commissioner of Education. Little interest has been expressed by House members in SCNS the last several years. One Representative from near Orlando where the University of Central Florida is located was ready to scrap the articulation coordination agreement, SCNS, and anything else which was designed to enhance community college-university relationships. He thought (in May 1981) that none of these things "worked worth a damn." In fact, he said the community college where he worked and several other colleges were about to sue the University of Central Florida for denying admission to their A.A. graduates. He worked between legislative sessions as an official at his college and was incensed because the University of Central Florida had numerous foreign students but refused to take any more American students (unless they were funded by the BOR and the Legislature). The real problem of funding a rapidly growing university, University of Central Florida, did receive some attention during the session, but the SCNS and other articulation arrangements weren't altered by any legislative enactments. (A 1981 proviso did call for postsecondary vocational "courses" to be entered in the SCNS, but no funds were provided for the work.)

The willingness of institutional officials and faculty to tolerate and allow SCNS to function has been evident for several years. The sporadic challenges to its functions, legitimacy and survival seem to have subsided somewhat. As one academic vice-president stated, "The guerilla warfare by my faculty against SCNS has stopped." It seems clear that the proviso language in the annual Appropriation Acts still carries some weight even though the authority of the act expires at the end of each budget year. It appears that SCNS has become institutionalized and now relies, it seems, on voluntary cooperation to keep it going. This desirable state of cooperation seems very important given the conflict ridden history of SCNS. However, without any permanent rules to govern its operations, it would seem to be vulnerable to a variety of unanticipated uncertainties. The inability or unwillingness of the officials of the Department of Education or the BOR staff to include SCNS during the (1980-81) planning for calendar conversion at the universities raises anew the legitimacy and other new questions. The lack of consultation with SCNS seems evidence that adherence to the requirements in Florida Statutes that the SCNS course inventories were to be maintained by faculty committees is not taken very seriously by State officials. This situation may exist in a large part because there is no overall postsecondary governance or coordinating structure in Florida.

Summary

The accountability movement of state government relies in large part on the development of information systems. Legislators and committee staff are particularly interested in being able to obtain operating data much like that received by (local) institutional administrators. The SCNS has enjoyed extensive support from the Florida Legislature, the Senate in particular, in large part because SCNS represents part of the information accountability resources which modern legislators need if they are to perform detailed oversight functions. However, the devolution of power from the BOR to the universities in 1979 represented implementation of a contrasting management philosophy in the Legislature which would rely much less heavily on the development and operation of state-wide information accountability systems. The new wave of decentralization for the universities has really altered the current accountability and oversight functions of the Legislature. This situation seems to indicate that SCNS still may be expected to generate a variety of information and data of interest to the Legislature and State government officials. However, if Legislative guidelines continue to appear only as instructional provisions in the annual (or biennial) budget, there probably will remain enough uncertainty about the permanence of SCNS such that it will continue to be challenged in the networks of interinstitutional councils, commissions, and boards of higher education. Perhaps new statutory provisions, official rules, or official guidelines are needed to clarify the functions, responsibilities and authority of SCNS. Even placement of it in a more centralized organizational structure such as the Postsecondary Education Planning Commission might help to clarify and stabilize the role of SCNS.

Two other factors which apparently have made possible a number of challenges to the legitimacy of SCNS are the lack of a strong Policy Council and a systematic and periodic communication program directed to faculty and administrators in the colleges and universities. Perhaps both would have helped those who continue to complain about SCNS to at least get their facts straight, a goal worthy of any postsecondary system.

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CHAPTER IV

GOALS AND OUTPUTS

This chapter reports on the goals of SCNS and the outputs from the System, i.e., the products and services provided by it. The activities and operations of the System are explained to illustrate the nature of these goals.

A. Program Goals

The goals of SCNS compiled as part of this study appear in Chart 2. They have been organized into three parts according to the relative time involved in their pursuit or achievement. It should be noted that in the field of education goals tend to reflect values and aspirations, are usually abstract in character and function to orient and vaguely define a program's boundaries. Most often the goals change as a result of changes in activities rather than from a change in aspirations. Public agencies which operate largely on a reactive basis tend to have shifts in goals as a result of their latest round of activities. The public offices which take a proactive stance use goals as a vision of some more desirable future state of affairs. The first agency relies largely on a "muddling through" strategy, uses incremental decision making almost exclusively and tends to accept the existing allocation of government responsibilities as if few other arrangements were possible. The second, or proactive agency, attempts to assert leadership, demonstrates the interdependence of many separate programs and points to where deficiencies exist; many times deficiencies are identified as the persistant and somewhat easily seen discrepancies between aspirations and achievement. The imaginative or knowledgeable leader often suggests plausible remedies for the apparent discrepancies; these suggestions are received by other officials with reactions from a wry smile of polite cynicism to blood-vessel-bursting outrage. The leader who is usually correct in diagnosing problems in the domains of other officials sometimes may function successfully as a change agent. When this happens the ultimate goals of that person's program turn out to be very important as a guide to understanding the direction and future state of affairs desired by this change agent. Not often is an administrator of a single program located rather deep in the education bureaucracy seen as bold or visionary enough to be labled a change agent, but some are. The SCNS seems to fall toward the proactive end of the continuum and has had the mantle of change agentry thrust upon it.

With this model in mind, a substantial effort was made during the study to identify the activities occurring at SCNS, then to see how these activities related to the statutory requirements and the current and historical aspirations for SCNS. When persistent patterns of activities were found these were initially defined as operational goals. This concept emphasizes the fact that a successful set of procedures and activities usually become highly valued and their continuance becomes a goal. Because so little has been done to reward persons for the outputs produced in the non-profit sector, activities and good behavior are used as the principal evidence to reward persons. This reward system provides the ultimate reinforcement for the enshrinement of procedures and activities as if they were ultimate goals. The short range operating goals of SCNS are given in Part A of Chart 2; the long range and ultimate goals appear in Part C.

Operational goals will not by themselves move an agency to produce products and services which are to constitute the desired outputs. Many persons have ideas and visual images about the kinds of products and services which should be provided; they include everyone from typists to computer systems technicians to the director (as the grand designer, coordinator, includer of disparate viewpoints, etc.) and the potential users of the products and services. The latter may be mobilized into a committee to suggest, review or critique proposals of outputs. Again, as these outputs are defined, designed, programmed, produced and accepted in whole or part, their continued production becomes an end (goal) in itself. Part B of Chart 2 contains the intermediate (medium range) goals of SCNS. Periodic inquiry needs to be made to insure that the products are actually being used, i.e. to assess the utility and relevance of products to the potential users; this aspect of the study is reported in the next chapter. The goals which relate to utilization of products and services appear in Part C, items 8 and 9 of the chart.

Particular comments about the various parts and some goal statements follows; the actual products and services of SCNS are described in section B of this chapter.

Short Range Goals

The Short Range Operating Goals were taken from activities performed by all staff members in SCNS. Some of the tasks and activities were performed weekly, others daily. Some, such as A.9. were suspended during the year 1980-81 while university courses were being converted to a semester calendar; they may resume in 1982. Organizing these conferences requires a great amount of planning, meetings of the task forces, compilation of materials, mailing of notices and materials before the meeting, etc. Although each discipline is unique, the arranging for the conferences requires a similar set of steps and procedures.

Goal A.10. indicates clearly that even when a director plans ahead and alerts all parties to the need for systematic coordination, nothing may come of his efforts, as in the

Chart 2

GOALS OF THE STATEWIDE COURSE NUMBERING SYSTEM

A. Short Range Operating Goals:

1. Develop classification system for all disciplines and fields of study.*

2. Classify all institutional courses using the statewide course numbers of three alpha letter prefixes and four numeric digits.*

3. Maintain a course inventory for each college or university.

4. Process in a timely manner all institutional requests for changes in course profiles and classifications, course deletions, or the addition of new courses.*

5. Secure nominations for, create and maintain faculty task forces for, each discipline or field of study.

6. Refer to each discipline task force chairperson or members, after a taxonomy is created, requests to change the taxonomy, and for classification or reclassification of courses not fitting guidelines for regular classification.*

7. Secure appointment at each institution of a person to serve as liaison between the institution and SCNS. Have all requests for course changes, etc., from an institution cleared through the liaison officer before coming to SCNS.

8. Conduct workshops and presentations or appear on programs to explain the purpose of SCNS and to correct misunderstandings about the System.

9. Throughout the year organize discipline task force meetings (one or two for each of the 150 task forces) to oversee maintenance of the System.*

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*Using faculty committees, as required by Chap. 229.551 (1)(g) F.S. and Chap. 6A-10.24(15) F.A.C.

Chart 2 --Continued

10. Plan, program and budget for continuation and maintenance of the System, for special workloads on the existing System* and for new increments to be added to the System.**

11. Request each institutional liaison officer, registrar or other official to have a local person systematically compare a current SCNS course inventory with the institution's list of authorized courses to ensure the accuracy and completeness of the SCNS inventory.

B. Intermediate (Medium Range) Goals:

1. Compile, produce and distribute to all colleges and universities copies of the discipline classification systems and the courses classified within each one.

2. Convert products in 1. to microfiche and distribute at least annually, but usually every four months, to all public institutions.

3. Make accessible to any potential users all products placed in computer files (although the user must have the correct technical equipment, etc.)

4. Compile data and reports from the course inventory files on a periodic basis to assist academic counselors, curriculum analysts, planners, et al., e.g., the Course Equivalency Directory.

5. Compile reports on an ad hoc basis for institutional or state officials.

6. Contract for studies of the discipline course inventories (to assess the quality of the records, and to identify overlapping and duplicate courses and genuine course proliferation), of special problems and of ways to improve the System.

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*For example, revise course inventory from 58,600 university quarter calendar courses to about 50,000 semester courses in 1981.

**For example, the resources and time needed to add the equivalent of 21,000 (estimated) postsecondary vocational "courses" beginning in 1981.

Chart 2 --Continued

7. Contract for and utilize the services of computer systems analysts and programmers to enhance the quality of data in the course inventory and to make possible the efficient retrieval of needed information.

8. Conduct training sessions for liaison officers, task force members, institutional officials, departmental faculty, and SCNS staff members.

9. Organize discipline faculty conferences every 3-5 years with representatives from all of Florida institutions, to review the adequacy of the taxonomy, the level of courses, overlapping courses, course equivalency, etc.

10. Search for new applications of data from the course inventory files and demonstrate effective uses of the data to enhance educational decision making.

C. Long Range and Ultimate Goals

1. Assist the Florida Commissioner of Education (through the Associate Deputy Commissioner) with his statutory responsibility to develop and implement an integrated information system for educational management at all levels of education. [229.552 (2)(a) F.S.]

   a. Uniformly define and use a common set of data elements, forms, etc., such as a common transcript and common course numbers.

2. Uniformly define the first numerical course number, e.g. 1=freshman, etc., for all of higher education.

   a. To facilitate the review of academic degree program proposals, the conduct of cost studies and the building of budget requests to the Legislature. (BOR, SUS, circa 1970)

3. Improve program planning [229.551 (1)(g) F.S.]

   a. Identify curriculum gaps and institutions with extensive subject matter specialization.

   b. Estimate consequences of existing course proliferation.

Chart 2 --Continued

4. Increase communication among community colleges and universities. [229.551 (1)(g) F.S.]

    a. Through use of discipline taxonomies, analysis of courses within them and meetings of faculty, the common and unique aspects of the curriculum can be identified by level.

5. Facilitate the transfer of students [within and between community colleges and universities]. [229.551 (1)(g) F.S.]

    a. Reveal through the use of common course numbers on transcripts whether a transfer student has taken the same courses as required of a native student, for admission with advanced standing and without loss of credit previously earned. [6A-10.24 (15) F.A.C.] [DCC, circa 1967]

    b. Reduce the number of course credits which have to be repeated when it can be shown that a transfer student has already taken comparable courses successfully. [Leg.]

6. The system shall not encourage or require [a] course content prescription or standardization or [b] uniform course testing. [229.551 (1)(g) F.S.]

7. The continuing maintenance of the system shall be accomplished by appropriate faculty committees. [229.551 (1)(g) F.S.]

8. Encourage institutional administrators and faculty to use the products and services of the System to:

    a. reduce course proliferation before a curriculum committee approves a duplicate course;

    b. negotiate and resolve the jurisdictional disputes over subject matter among community colleges, universities and vocational centers;

    c. use human and financial resources more effectively which will be made available by eliminating unnecessary duplication;

    d. protect themselves against unwarranted and inappropriate comparisons of courses, majors, schools and degree programs by demonstrating with classified courses and discipline taxonomies their different curricula, objectives and instructional means. [Dir, SCNS]

Chart 2 --Continued

9. Encourage state postsecondary planning, coordinating and governing boards to use the products and services of the System to:

    a. enhance program reviews and provide outside program consultants with structural descriptions of the curricula;

    b. examine the General Education programs to determine completeness, extensiveness, variety, etc.

    c. clarify the use of credit for non-college remedial work, for precollege-level vocational training, and for other unusual purposes. [Dir, SCNS].

NOTE: these goals were compiled from sections of the Florida Statutes, Florida Administrative Code, SCNS planning and explanatory documents; from interviews with SCNS staff state officials and institutional liaison officers; and, from the minutes of the relevant interinstitutional councils and committees of officials from the 28 community colleges, 9 universities and the Articulation Coordinating Committee. JSW. (7-81) case of conversion of courses at the Universities, during the change from the quarter to the semester. That is, goal achievement may be beyond the control or influence of the director. As a result of the uncoordinated conversion of courses by the universities--whether among the nine public ones or between the universities and the community colleges--it appears that the SCNS may receive a lot of hostility over the next two or three years. This could result from the universities unilaterally changing course numbers and from the redesign of the discipline taxonomies which faculty task forces may undertake after reviewing the new set of courses resulting from the conversions. These changes can cause substantial revamping of program information in the front of each institution's catalog as well as a change in the identification line for each course description in the catalog. The same kinds of hostile reactions may occur at the 28 postsecondary vocational centers* if conversion to courses of their 91,000 units of instruction is begun this year. This task was assigned to SCNS in the Appropriations Act of 1981. Conversion will require identification of common units or topics which serve a variety of vocational programs; identification of co-requisite and pre-requisite curricula so all may convert together to be in proper sequence; and identification of the non-interdependent or unique curricula which is not dependent on other vocational programs. This, of course, sounds like the earliest steps in the developmental phase for converting individual college and university courses to a statewide system about 10 years ago. However, there are not any special funds appropriated to SCNS for these activities, so the conversions may not begin at all or begin with only a few subject areas. If most vocational subject programs are independent, the incremental approach may be possible.

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*These are part of the public school systems of one or several county districts.

Goal A.11. refers to the need for an audit of each institution's course listings to insure that all courses are in the system. Also, this kind of check enables an institution to remove from its SCNS course list those courses which have been dropped at the institution. Some of the SCNS staff strongly feel the need for this arrangement. Here are some findings from a 1980 study, Surrogate Learning Measures (completed by the writer), which relate to the need for some kind of checking just to verify the quality of the data in the course inventory:

1. Some catalogs list credits, credit hours or semester hours; all are defined in equivalent terms, i.e., one credit and semester hour equals one 50 minute class meeting for 15 or 16 weeks. Only one of these terms was used for all courses in a catalog, unless exceptions were made for clock hours, institutional credit, or other non-college credit units.
2. Courses in catalogs with institutional, technical, certificate credit or units might or might not have classified course numbers.

> 3. Classified courses with irregular forms of credit might or might not have the units in the computerized course inventory.
>
> 4. Some colleges had courses assigned regular college credit but were without classified course numbers.
>
> 5. Some courses, in increasing frequency--academic, technical, vocational--had wrong or "made-up" prefixes and numbers when appropriate classified numbers were already in existence. This was a large problem for all occupational courses.
>
> 6. Some colleges had occupational courses with pseudo classified course numbers made by "x"ing out the prefix or placing a zero or letter as the first numerical digit of the course number. The remaining portion of the classified course might or might not be correct.
>
> 7. Many vocational (skill level) courses used a six-digit, three-alpha, three-number, course designation. These apparently had some systematic meaning in relation to vocational system reference or MIS materials. [p.83-84.]

So far, one university, Florida State, has conducted a systematic comparison between its approved courses and those on the SCNS course list. In addition to finding those courses unlisted in SCNS and those still in SCNS but dropped at the institution, several duplicates were identified and one of each removed. This work was performed by the FSU liaison officer.

A very concise summary of the course classification system and the priciples of course equivalency may be found in Appendix A-1. It represents the means by which SCNS has proceeded to implement Goal C.5. and indicates the kind of information presented to faculty discipline task force members so they can carry out the work under Goal A.2.

Medium Range Goals

These goals focus on the production of outputs and services, which are intermediate in character. Attainment of many of the short range goals in Part A of Chart 2 results in the construction of three SCNS data bases: the course inventories, taxonomies and profiles. The intermediate goals of Part B identify information outputs to be generated from the SCNS data bases. These products and services are some of the means which will facilitate achievement of the long range goals in Part C.

The medium range goals require the services of persons with skills to manipulate computer programs, compile data tables, analyze data and write reports about their findings. These skills are not the primary ones required to achieve the short run operating goals and are in very short supply among current SCNS staff. The Part B goals are the principal ones which relate to the information needs of state officials. Thus, these goals relate to the benefits (i.e., outputs) hoped for by some of the key State supporters of SCNS.

Long Range and Ultimate Goals

Many of these goals are taken from the Florida Statutes and the Florida Administrative Code. They constitute a set of statements about the purposes and aspirations for the SCNS. The statutory language also contains a procedural goal, C.7., i.e., that faculty committees will be used to maintain the system. And, the same part also contains a negative goal, C.6., which prohibits the Commissioner of Education from encouraging or requiring the prescription or standardization of course content or uniform course testing. The SCNS staff are expected to adhere to these two demands just as if they were desired achievements, end states, or ultimate goals.

Goal C.1. is taken from the statement of responsibilities for management information assigned to the Commissioner of Education. The recent reassignment of UNIFTRAN personnel from the BOR staff back to the universities would seem to make this goal more difficult of achievement for all of public education in Florida. On the other hand, some kind of uniform MIS for the nine universities which are now more independent of the BOR (since 1979) would seem likely to be desired by state officials. Incidentally, the SCNS course data files were never specifically incorporated into UNIFTRAN; neither were they included in the PPBS and MIS files for the 28 community colleges at the State's Division of Community Colleges (DCC). In 1972 both BOR and DCC thought the inclusion would be necessary for preparing legislative budget requests.

Goal C.2. was thoroughly endorsed by the staff of the BOR in the early 1970's. The former academic affairs vice chancellor had attempted three times over a period of several years to have the council of academic vice presidents agree upon a uniform system of first digits for all courses. However, each time a proposal was made one or two universities would object and it would fail. When the Department of Education's (DOE) course numbering project came along, the vice chancellor and vice presidents endorsed it. At this same time the vice chancellor for budget and planning also endorsed the course numbering project because he saw it as an integral part of the data base needed for a new state funding formula. Then 4 or 5 years later, the occupants of the top positions of the BOR changed and so did the ringing endorsement once given to SCNS.

Even before these staff changes took place the director of SCNS and the then Statwide Committee found that they needed to relinquish responsibility for assigning the first-levels-digit of the course number. At that time funding of the universities depended in large part on the first digit of course enrollments; the universities demanded that no "outsiders," meaning state officials or statewide faculty committees, be given authority to tamper with their existing course levels. The SCNS accepted these arguments and allowed all public institutions to assign the first digit to their courses. This left the SCNS in a more focused position because it then would have to be concerned only with classifying courses according to their subject matter and not embroiled in protracted negotiations about the absolutely correct first digit for each common course. However, this decision did leave the new statewide classified course numbers without a uniform first digit, which would be needed if there still was a desire for determining uniform statewide funding, i.e., the same course, no matter where taught, would always be funded at the same rate per FTE student. Thus, unless a new mandate develops from the Legislature it seems unlikely that this historic goal will ever be achieved.

It should be pointed out that there does exist important concern among state education and institutional officials about course numbers and course transferability. A longstanding SCNS principle of course equivalency is that a student taking a lower division course with the same last three digits as one offered at a higher level should be able to transfer the course automatically. However, many upper division university programs want to accept for transfer only those courses with the same first digit. Some programs, for example, business management and marketing, have professional associations which want to prohibit their introductory courses from being taught at the lower division level. Thus, even if the subject matter has been judged equivalent by a faculty task force, the upper division business programs say they must not accept these introductory courses when their first digit is a 1 or 2, for the lower division. This case is currently at issue before the Articulation Coordinating Committee and the SCNS faculty task force on business courses.

The SCNS has supported or conducted studies of courses which have been equated but are different as to the first digit; these are called dual-level courses and include common courses listed at both the lower and upper undergraduate levels and the upper undergraduate and graduate levels. After being identified they are brought to the attention of a faculty task force by an SCNS coordinator and asked to be re-evaluated. Those which remain in disagreement may be brought to a Discipline Conference for examination. Some courses may indeed be equivalent and taught at two levels, e.g., Introductory Spanish at the upper division university; introductory descriptive statistics may appear at any level. If the dual level courses are found to be substantially different one of them will then be assigned a new course number, which means the last three digits will change, but not the first or level digit. It must be pointed out that the universities have adminstrators and faculty who perceive this process as unneeded and involving outsiders in the internal affairs of their institutions, who have no knowledge or understanding of their unique practices, historical achievements or educational aspirations. Some state officials react to these assertions by pointing to the data as evidence that the internal affairs of the universities have been managed rather poorly and that their achievements have occurred in spite of their problems. These different perceptions may be interpreted through the two models of responsibility enunciated by the Legislature in 1979-80: decentralize authority and hold administrators responsible, or create "deep" management information systems and detailed instructions about expenditure of public funds; see Chapter III preceding. Thus, it should be clear that the goal of the uniform first digit is still much in contention even though the original reasons for the goal have expired.

Goals C.3. through 5. are from the Florida Statutes. Number 5.a. appeared around 1967, or earlier, for the community colleges. The recommendation for a uniform numbering system then came from a State advisory board member to the director of the Division of Community Colleges. One of its members had found in his travels around Florida that the few universities in existence then were denying admission to bona fide graduates of academic transfer programs at the junior colleges. Uniform course numbering, when implemented, was to be one more means by which a student could make a claim for admission to the upper division of the universities. It was in March 1978 that part of the original idea was placed in Section 15 of the Articulation Agreement between the community colleges and the universities. This section requires only in part what is stated in Goal 5.a. Furthermore, students have no way of knowing about the articulation rules unless a very well informed adminstrator or counselor is willing to share such information. And, because the universities absolutely determine the requirements for graduation--or they wouldn't be accredited universities--any student might have to do more credit work for gradauation than that required for the typical four year degree program. That is, a transfer student, or even a native student, may be admitted to work on a major with full credit for the first two years of college, but be judged insufficiently educated to meet regular graduation requirements. Studies of university curricula in a variety of fields has revealed that the purpose of 5.a. may be achieved with or without common courses. That is, evaluators of academic credentials have been authorized in some programs to accept a variety of courses, without common course numbers, as providing the equivalent of subject matter or training as those in a program's "required" course(s). The ability of a group of students to pass end-of-year, end-of-program or professional licensing examinations after completing diverse curricula, as in nursing, illustrates this concept very well. This means, then, that common course numbers may not be the only means by which to determine the equivalency of a transfer student's educational experience. This is why the counseling handbooks from the universities are growing in importance for transferring students.

Goal 5.b. has been operational through the CLEP testing program (and others) so a student may avoid having to retake credit courses as a freshman which were taken successfully in high school. Perhaps the proposed sophomore testing program will enable advanced freshmen to avoid taking redundant sophomore courses and be 'promoted' to the junior year based on his or her knowledge. In any event, achievement of this objective can be determined by empirical research of the records of transfer students moving through the universities. A low percentage of transfer students having to repeat courses or a low percentage of courses repeated is an indication that common course numbering is probably an aid to transfer students.

Negative Goal C.6. was alleged by an unhappy professor to have been violated by his discipline's task force chairman a few years ago. The complaining professor sent his charges to a local state representative who agreed with him. Both were wrong because the negative goal applies to the Commissioner of Education, not to faculty members. The circumstances of this situation indicate how easy it is to become involved in factual disputes over interpretations of the law. Discussion by task force faculty of curriculum and course content is a normal and natural occurrence; it happens regularly at discipline professional meetings. What causes some difficulty here is that faculty may fear the invasion of the State into curriculum matters or that a violation of academic freedom may occur if a faculty group tells their discipline colleagues at different institutions what they should teach. However, faculty concerned with the articulation process and that students are prepared adequately before transferring to a second institution show little sympathy for this version of academic freedom. However, many faculty representatives to Discipline Conferences are wary of State sponsorship of meetings at which curriculum matters are to be examined and/or resolved.

Goal C.7. has been implemented in almost every way possible; it was even implemented two years before being required by statute. The goal did lead to a shift in the makeup of the new statewide policy council of SCNS which now has a majority of faculty appointed to it. However, even though more than 600 faculty have been identified as serving on more that 150 task forces, only a very few were involved in the recent conversion of university courses to the semester calendar. The director of SCNS made substantial efforts to alert DOE and BOR officials to the need for systematic interinstitutional conversion efforts so that the faculty task forces could meet before the new university numbers were included in the 1981-82 catalogs. No DOE officials responded to this need and the BOR staff said that their role now, after a management study, was not to assert leadership in interinstitutional matters. Thus, no interinstitutional committees of community college and university faculty members reviewed beforehand the new course numbers listed in the 1981-82 catalogs. However, each SCNS staff member did contact the chairperson or a member of the task force, or some faculty member when unusual courses appeared. The staff seem to have done what was possible in the limited time available. The faculty discipline task forces are to begin meeting in 1982 to review the new university courses in relation to those of the community colleges. Perhaps this process of muddling through will bring about a satisfactory result at the end of two or three years, the time likely to be needed to examine and re-equate all courses. Hopefully, the universities will be very tolerant of transfering students who bring a mixture of courses whose SCNS prefixes and numbers may have been changed more than once during these next several years.

Goals C.8. and 9. were proposed by the first director of SCNS; they have been stated in various ways in a variety of documents for most of the life of SCNS. In some ways these represent diffusion goals, meaning that the director and others are willing to attempt to demonstrate that SCNS products and services can be helpful in a wide variety of institutional and state agency tasks. Some evidence to support this expectation appears in the next chapter. Described next are the products and services of SCNS.

B. Products and Services

The products of the SCNS represent the physical outputs of the system. They all relate to one of the intermediate goals in Chart 2, part B. A sample of each output with few exceptions, will be included in Appendix C and noted in the description below.

1. Institutional Course Inventory Report.* This report lists all courses for a single institution; the numbered courses are organized by alpha prefix and discipline. The report may be run anytime so it represents all the courses in the SCNS inventory for a particular institution at some fixed date. See Appendix C-1.

The report shows the essential information about the course: the old prefix and number, if one existed prior to implementation of SCNS; the new statewide or classified course prefix and number; the local title of the course; number of credit hours; addition or change dates; and effective or termination dates. The first set of dates permit generation of audit records about the additions, changes, deletes and institutional reclassification of courses; these data enable production of transaction workload reports monthly for all SCNS staff persons. The second set of dates permit addition of a new course before it is ever offered and, conversely, permits identification of courses targeted for discontinuance in the future.

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*Current efforts are underway at SCNS to make these titles more descriptive and memorable.

2. Subject Matter Course Inventory Report (often called the Institutional Course List or a Discipline Course List). The report lists for each institution in the SCNS inventory all of the courses in a single discipline and its prefix(es). It includes all of the same information in the same format as the report in 1. It can reveal to a department a list of all of its courses in a discipline; the department can then use report 3.b. to see which other institutions have the same courses. See Appendix C-2.

3. This is a report in two sections, often called the Field Review because it was sent to the institutions for review during the development of the original course inventory. See Appendix C-3.

3.a. Subject Matter Classification. This report, the first or front portion of the two-part report, lists information about the classification system (or taxonomy as it used to be called) for each prefix in a discipline. The information appears in a numerical hierarchy; the left most listing is a century series (e.g. 000-099, 100-199), followed by its classification title. The next, and indented, entry would be for a decade range within the century (e.g. 100-109, 110-119), with the titles for each decade following the range numbers. The third level in the classification system is the unit or generic (SCNS) course number, which appears only in the following report.

3.b. Course Inventory Report. This report follows the same hierarchical format described above, except below the decade range (and indented) it lists the course unit or generic prefix and number (e.g. MUC 101) followed by the SCNS title. Then, also further indented, is listed down the page a course for each institution having one under this SCNS unit number; the institutional abbreviation is listed on the far left side. The institution's old prefix and number is followed by a single digit number; it is the current first digit in the four digit course number which is assigned by the institution to the SCNS three digit subject matter code number. The local title appears next. Two columns following are headed "USOE" and "HEGIS"; these refer to discipline code numbers used by the various federal education agencies for classifying data reported to them about enrollments, funding, graduates, etc. Credits appear next; the third digit is the unit of credit, i.e., 1, 2, 5, etc; some entries indicate a range of credit and have a dash between the minimum and maximum values. Next right are two sets of dates, identically as described for report 1 above. The last column contains data unique to each course followed by a record number; entries indicate that a course is listed more than once in the course inventory and is awaiting some key change effective at some later date or a key change has already occurred.

4. Course Equivalency Profiles. The profiles for each course in the SCNS are organized by discipline and prefix. The unit or generic SCNS course number and title head each profile. They may be printed by computer on standard size 8-1/2 by 11 paper or on wide computer print-out paper. See Appendix C-4. The profiles contain a standard set of data and information about each course, if that information is available and has been entered. The standard categories of information are: Prerequisite: these are often stated as skills or knowledge needed. Intended Students: this may list the terms graduate, or majors or non-majors--the latter two are presumed to be undergraduate designators, but ought to be confirmed. Intro/Advanced: designates the complexity of the course--note that even a graduate course may be introductory. Major Topics: lists a very, very concise statement of the subjects covered. Special Requirements: indicates other characteristics required of potential students. Guidelines: lists the competencies students are expected to demonstrate to pass the course; may also contain the outline of the course.

The contents under Guidelines for a 000 course number may be used for a special profile which has been designed to list the definitions and characteristics of a discipline. Remarks: lists special information about automatic transferability requirements, e.g. art courses don't; others which don't include a course that is part of a sequence of courses which must be completed before its's possible to earn full credit. Also, graduate courses are usually identified here, but not always.

5. Inventory Update Report (also called the Audit Trail). This report is prepared in four sections: Additions, Changes, Deletes and Reclassifications. Each institution which has had transactions to its course inventory will be separately listed in each section. All of the transactions are listed by discipline, prefix and course number. The report is produced monthly and the sections for each institution are assembled and mailed out. The data elements included in the report are the same as in the previous ones, with a slight change in the left-right order. See Appendix C-5.

The same transaction data for this report are used to generate workload reports for the director and the SCNS staff. The original transaction data are entered through computer terminals by the professional and clerical staff (if the latter have time and the professional staff do not).

6. Course Equivalency and Distribution Directory (usually called the Course Equivalency Directory). This directory is a table of 37 columns or more, depending on the number of institutions in the directory. See Appendix C-6. For example, the private Florida College may be

included because it uses SCNS course codes and classifications. Each line in the directory has a classified course identifier in the left most column; this means it has a three letter alpha prefix and a three digit number. Next appears a single digit column which may contain a "P". This letter means that the Course Profile needs to be consulted because course equivalency, and hence automatic transferability, may be restricted. Next is a column listing the generic course title. There is no limit to the number of lines in the directory except the total number of classified courses in a discipline or the SCNS inventory. In the body of the table at the intersection of each column and line is a first digit for each institution (column) listing a classified course (line). In the right-most column is a total of the number of institutions listing any first digits for a course. If an institution lists the same course with several different first digits then a letter code appears in place of any of the first digits. The directory table can be produced with a specific set of courses with different prefixes and numbers, making it possible to focus on courses with particular characteristics.

The directory provides very specific evidence about the course which are common among two or more (to 37) institutions or are unique (1) to a particular college or university. It also shows which courses are not common between community colleges and universities. Such information and much more can be used for a variety of analyses and studies which can be valuable to both State and institutional officials. See Appendix C-6 for an explanation about the relationship between the data from this table and the concept of automatic transferability.

7. Comparability Reports. This report is designed to list in a simple format the courses in a discipline from any of nine institutions (or less) which are comparable to each course listed for a particular institution. When rotated for each institution in the course inventory and the comparison made only between sets of institutions sending and receiving transfer students, very specific (non) comparability patterns become evident. Such data have been used in the Discipline Analysis Working Papers to point up potential transfer problems; these courses can then be re-examined by the faculty task force and, if appropriate, raised for discussion at a Discipline Conference.

This report is generated only upon request. See Appendix C-7.

8. Ad hoc Reports. A variety of other reports are generated as needed, including course listings, counts of alpha prefixes and counts of courses by institution, by discipline or any characteristic in the data base. Some of these counts reveal the number and percentage of upper

division courses equated with those in community colleges and at the lower level of four-year universities. These counts can be confined to predetermined sets of institutions, such as for transferring students, consortia members, etc. The availability of such file management programs at the Northwest Regional Data Center as Mark 1V enables a wide variety of information and statistics to be obtained from existing SCNS data bases.

9. Copies of SCNS File Tapes. At least two institutions (University of Florida and Santa Fe Community College) periodically send computer tapes to SCNS so they can obtain a copy of the most current course inventory. Any institution may request this service and data. Record formats and other documentation are available at SCNS.

Special Computer tapes must be prepared by SCNS in order to have microfiche copies of the SCNS file generated.

10. Microfiche Copies of Selected Reports. The reports numbered 3.a., 3.b., 4. and 6. above are converted to microfiche periodically and mailed to institutional liaison officers or other local persons who are subscribers. The microfiche are prepared at least annually or up to three times a year. The 4 X 6 microfiche contains reverse images, i.e., the printing is white (clear) and the background is black (opaque). The computer pages are reduced in size about 22 times which permits 13 rows and 16 columns

of page images, or 208 pages in all. The materials are grouped into four file envelopes, one each for the Course Equivalency Directory, and the Profiles, with two more required for the discipline/prefix classifications and course inventories. Usually less than 100 fiche are in each envelope. However, only one discipline is included on a fiche, which in many instances means only a few columns of page images appear on a fiche. This unique feature permits dividing up the microfiche and sending them to departments, divisions, schools or other subunits within a college or university (but no one seems to be doing this). The fiche are structured by discipline code numbers and by prefix within each discipline. Thus, it is imperative that the user know the file structure and codes for ease of access and use of the materials.

11. Remote Terminal Access to Computer Files. The location of the SCNS data files at the Northwest Regional Data Center enables any of the five universities now using the center's services to access the SCNS data files. One liaison officer reports that use of terminal access is more efficient than working with the microfiche, even when he has a microfiche reader at his desk. Technically, because of networking, the other four universities could also use terminal access. Other colleges might be able to use the dial-up capability of NWRDC if they have compatable

terminals.

This service provides the most complete access to SCNS files for users because it enables the complete record of a single generic course to be brought up on a CRT screen, or the file to be searched and the list shown on the screen of courses at a single institution, or a list is generated and shown of institutions offering the same course, or the classification hierarchy is made visible for a discipline and prefix. This form of access provides the most timely data to any user. The users can see this data, but they cannot add to it or change the information, because this kind of access is restricted to SCNS staff.

12. Documentation About SCNS. Many different materials have been prepared over the years to explain, document and analyze the system. These include handbooks, guidelines, information sheets, and so on. They also include formal reports such as the Discipline Analysis Working Papers and the various compiled data tables for the statewide discipline conferences of faculty. Appendix C-9 lists the DAWP's and other study reports generated since the summer of 1977.

Over the years the SCNS has received requests for many different kinds of products, services and outputs. A listing of many of these requests, which were met from regular outputs, or for which special outputs were generated, may be found in Appendix C-12. The list also indicates that government officials, institutional administrators and faculty from outside Florida have sent many requests asking for descriptive information about the SCNS.

The SCNS staff handles many telephone calls asking for available course numbers, where to find a subject matter area in a taxonomy, or information about a prefix. Being in the same building also makes it possible for staff members from other postsecondary agencies to drop in to obtain a few facts, get a copy of an inventory, and so on. Responses to these requests constitute a form of service, which also includes the conduct of orientations about SCNS; these are performed for people (and students) who ask for them, as well as for the many persons working with task forces, liaison officers, and new SCNS staff.

As persons concerned with the structure or analysis of curricula learn that SCNS contains persons with real expertise in these areas, some requests for special assistance have begun to emerge. These are not strictly course numbering matters but fall in that category of public service which often befalls faculty experts. For example, two staff members have been working with a group of Home Economics faculty in Jacksonville who are attempting to restructure their curriculum.

Last year the director of SCNS was approached by a representative of a U.S. Navy Atlantic Fleet admiral who was very dissatisfied with the quality of higher education programs reported aboard his ships. Subsequently the director, a captain with a long and successful career in the Navy Reserves, undertook an enormously detailed analysis of the Navy PACE Program. By using SCNS data and the general education curricula at Florida's institutions he was able to structure one of the most complete studies of PACE ever undertaken. Although he did work on the study while on summer active duty, he was not paid for the voluminous task; his final report earned him several professional and personal accolades and a Presidential Citation, which was delivered in August 1981. Again, the availability of SCNS data and much other information about Florida's community colleges and universities made possible this commendable service. It is encouraging to find public employees who are willing to share their extensive expertise with officials of other governmental instrumentalities. (Obviously these activities shouldn't absorb a disproportionate share of the SCNS' resources, and apparently they have not done so to date.)

Summary

The goals for SCNS were compiled from actual activities, historical expectations and legal requirements. The operating goals are ongoing, but sometimes their continuing achievement is threatened, for example, by having to enter about 22,000 courses not reviewed by faculty task forces and by a requirement in the current appropriations act that postsecondary vocational units be converted to courses and entered into the course inventory files.

The products and services of SCNS provide a rich variety of intermediate outputs. However, the skills available in the current staff are grossly insufficient in the area of computer operations; if the current staff are not trained in these areas it seems likely that the variety, quality or reliability of these products may decline. Without them, the ultimate goals are clearly in jeopardy.

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CHAPTER V

UTILIZATION OF SCNS OUTPUTS

A number of efforts were made to locate reliable information about the actual utilization of SCNS products and services. A survey was conducted of SCNS Institutional Liaison Officers; it asked for the names of persons using SCNS materials and requested copies of any reports or studies about the system, its use, and so on. An unsuccessful planned effort involved attendance at the annaul meeting of the Florida section of Association of Institutional Research. Handouts like the materials sent to the liaison officers were to be distributed and personal requests for assistance were scheduled. Unfortunately, a bureaucratic veto on travel appeared in the Department of Education a few days before the conference, which prevented this activity from being carried to fruition. A survey of faculty chairpersons and task force members was conducted at the nine universities. It included a variety of questions of which some were about the use of SCNS materials during the conversion of courses to the semester calendar.

In addition to the survey data, inquiries were sent to recent and historic users of SCNS products, files were searched for letters and memoranda which reported usages, and some follow-up telephone calls were made to expected users. The information from these searches constitute documented records of utilization. Given the extensive list of requests for SCNS products or services from so many persons (see Appendix C-12), it seems highly probable that many more reports about actual use of SCNS products were obtainable; however, time and resources expired before any additional rounds of inquiry could be attempted.

One of the important discoveries in this part of the evaluation study was that most institutional officials and support staff had little or no knowledge of the products and services of SCNS. Instead, many persons, including many institutional liaison officers, saw only the classified course identifier (the three letter alpha prefix and four digit number) as the product of SCNS. Thus, initially it is important to distinguish between a type one output, a statewide course identifier, and all of the other (type two) outputs which are the derived products and services of SCNS.

A. Use of Course Identifiers

The SCNS classified course identifiers (i.e., the alpha prefixes and the ending three digit number, the first digit being assigned by an institution) were required to be assigned to all public higher education courses during the developmental phase of SCNS. This phase lasted until about 1976. The next or implementation phase for SCNS involved the institutions incorporating the SCNS course identifiers in their catalogs, counseling manuals, other documents and using them to record courses on the transcripts of students. The third phase in the installation of SCNS required that all new courses be assigned a statewide course identifier, which was to have been confirmed by a faculty-discipline task force before being published by an institution. Because the curricula and courses are changing all the time in some disciplines somewhere among the 37 public community colleges and universities, the maintenance, or third phase of the System overlapped with the second phase.

Now, however, after the universities have converted (or created) about 22,000 courses to a semester credit basis, without task forces reviewing the work, phase one of the System would seem to be repeating itself. And, after the task forces meet to review and classify courses again, those courses which will be reclassified must be substituted for the recently published but unapproved university course identifiers; this means another phase two should develop in 1982-83 or later, after the reclassifications are over. Whenever a discipline task force decided to review its taxonomy, reconstruct it and reclassify all of the courses in it, then that too is a movement through phase one which requires another phase two response from the 37 public institutions.

The implications of these repeated cycles of changes in the course inventories of every college or university should be clearly understood; registrars and catalog editors are going to be faced with a much greater volume of changing course identifiers than ever before during the next several years.

Registrars are going to be faced with the prospect of having the same subject matter course being assigned several different numbers and, perhaps, even a different prefix or two over the next three or four years. One registrar has devised a system to cope with this problem. He, like most registrars, needs to keep some kind of historical record (e.g., a file of old catalogs) for each subject matter course; this particular registrar wanted a single record for each course with data on it for all of the various identifiers assigned to the same course. This seemed to the registrar to be more efficient than having to search through old catalogs. The registrar appears to be using something like his old course numbers as a "permanent" institutional course content identifier. In this way, no matter what the statewide faculty task force in the discipline does about prefixing or numbering courses, the institution will always have a master list of course descriptions, each of which can be inventoried by a single institutional number. Of course, this system requires a dual set of course identifiers. Such a system does seem designed to avoid phase two, which was found to be the case at this community college until about spring 1981. Finding this open defiance of the earlier Legislative directions poses an interesting issue. Since the old Appropriations instructions are no longer in force, they were effective for one year, does their prior authority carry some compelling force which could have been invoked against the noncomplying registrar in 1980? Such a question would not have to be answered if there were some kind of official rules or policy guidelines which had some sort of enforcability about this and other matters of like nature.

The above digression illustrates only too well that the creation of course identifiers is not over, maintenance of the system is not the sole activity of the SCNS staff and that the policy for SCNS needs to be perfected and legitimized. The same set of circumstances described above raises an important question about compliance, an issue of increasing importance. For example, some form of audit probably should be conducted periodically to see if an institution was operating according to phase two standards, i.e., whether SCNS course identifiers were being used by curriculum committees, listed in departmental program planning guides for students, and on all records. Several of the SCNS staff have expressed concern about the possibility that some institutions are not obtaining confirmation for SCNS course identifiers before they are assigned to new courses. This suspicion is grounded in the evidence of an institution wanting to register a change in a course when the course does not exist officially in the SCNS inventory. It exists when a course may be listed in a catalog but not be listed in the SCNS inventory. And then there are the "courses" which are, for example, non-postsecondary vocational ones which have been given identifiers that look like SCNS course prefixes and numbers, but aren't. These often appear in the catalogs along with a very unusual set of courses which have look-alike or actual SCNS identifiers but award only institutional credit or some other unusual form of non-college credit. (See the Surrogate Learning Measures report referenced earlier.)

The extent to which SCNS is to include regular college level credit courses is clear in large part, but no definitive policy seems to exist about other kinds of courses. It is unclear now whether an institution's course submission can be questioned on the grounds that it does not meet the "for credit" test, the "college-level" test and others. At least one university said it will proceed to use the course identifiers it selects unless (or until) a disapproval from SCNS is received; this was before calendar conversion, which may have exacerbated this unapproved procedure. The staff have discovered some community colleges attempting to submit for inclusion in the SCNS inventory courses which are of a pre-college level; the leadership in the Division of Community Colleges asked the institutions to stop this practice. It arose apparently from the efforts of some colleges with vocational programs which wanted to convert their offerings to credit-like courses; the 1981 Appropriations Act includes proviso language about the need to convert vocational courses to the SCNS.

Clearly there is no good estimate of the extent to which SCNS course identifiers are being under or "over" utilized. If the percent of all such courses is quite small, then their effect on the quality of the data base is probably minimal. There seems to be a general feeling that the course inventories currently are largely complete and largely uncontaminated. However, due to calendar conversion at the universities and a Legislative push for entering vocational "courses" into SCNS, the pressures have built for increasing the magnitude of the two kinds of errors mentioned. It would seem highly appropriate to study this problem systematically, for the course inventories of SCNS could indeed become an empty formalism if the quality of their data is poor.

Finally, there are evolving a number of challenges to the equivalency of some courses. The latest emerges from the university business colleges which want to adhere to their professional association's recommendations that introductory business courses should be taught only at the upper division level. The Articulation Coordinating Committee has asked the director of SCNS to have the faculty task forces reexamine the lower division intro courses to determine whether they are in fact equivalent to the upper division intro business courses. This surely will not be the last of these kinds of proceedings and suggests that some kind of policy, procedures and instructions need to be developed at SCNS to insure that these kinds of reexaminations take place with the best and most complete set of information available. There ought to be definitions about what constitutes evidence in these comparisons and the weight to be given to each kind of evidence. The reevaluation ought to be conducted as if the courses were being equated for the first time, but in a more systematic and obvious manner. Proceeding in this fashion for several years should produce a number of general principles applicable to the classification of any set of common courses. Perhaps the deliberate "errors" in the first taxonomy created by the English Task Force (e.g., 90% equivalency for equated courses) can be avoided; this task force recently made wholesale changes in its taxonomy. The task force chairman explained in a letter that the members wanted many, many uncommon courses so that the State would have a very difficult time forcing (if it ever attempted to do so) standard textbooks, syllabi and exams on their hundreds of unique courses.

It does seem clear that some "new" course classification principles are emerging. The restructured Sociology Task Force, for example, differentiated lower division courses from upper division ones on the extent to which subject description or analysis predominated. That is, the Sociology of Crime could be a lower level course with much description of criminal phenomena and some analysis and theoretical explanation. An upper division course would have much more of the latter. This kind of differentiation is possible for only some disciplines, but this kind of formulation--a continua from description to analysis to theory--has a meaningful ring to the ears of faculty who believe there is a hierarchy, or levels, of complexity to any organized body of knowledge.

In summary, it must be emphasized that this first kind of output, the SCNS course identifier, is not a one-time thing cast in concrete. The course identifiers are subject to change because of external pressures (e.g., new calendar policy, accreditation issues), discipline growth or contraction, and a need identified by the task force to correct and improve its taxonomy. The external forces and the perceived needs of departmental faculty and administrators may lead to circumstances in which courses are not entered into SCNS, or attempts are made to enter "look-alike" courses, or "look-alike" CNS course numbers are used in institutional catalogs. Any of these things can impact the quality of the SCNS course inventories and need to be controlled if the quality is to be kept high.

B. Use of SCNS Products and Services

This is a report on the use of SCNS products and services, i.e., both type one and two outputs; it is arranged according to the primary usages evident in the documentation reporting them. The products and services are described in Chapter IV.

Admissions and Registration

Mrs. Libby White, a helper at registration and enrollment for many years at FSU said June 15, 1979 (to the assistant director of SCNS), that she and her co-workers had discovered that prefixes for a discipline were uniform from school to school, that identical numbers mark automatically transferable courses, and that they were very impressed and pleased at the ease this created for them. "Mrs. White commented that CNS allowed an accuracy of interpretation which was totally impossible before the development of the system."

Mr. Gil McNeal, Registrar, Manatee Junior College, gave two reports December 4, 1979, to a meeting of all SCNS institutional liaison officers: first, he said that no criticisms of the SCNS were made by those attending a recent meeting of registrars and admissions officers. Second, he presented the ways in which SCNS helps registrars: "(1) It aids in evaluation of student transcripts--sometimes cutting evaluation time in half. (2) It helps in preparation of catalog copy. (3) It helps in evaluation of out-of-state transcripts."

Another registrar, L. Nelson Donnell, Brevard Community College, listed these benefits of SCNS (August 3, 1981):

> 1. Enhances transferability . . .
> 2. Improves accuracy in classification of courses for consistency in reporting.
> 3. Reduces administrative time at the institutional level in determining classification and comparability.
> 4. Reduces course proliferation . . .

Mr. Howard L. Sinsley, Director of Certification, Hillsborough Community College, wrote August 4, 1981:

> the registrars, counselors and advisors on each campus utilize the new numbers when advising students and in evaluating transcripts from Florida's public institutions.
>
> For the most part, they find the CNS to be quite helpful because it is easier to equate courses. However, all institutions have not fully adopted the system. Therefore some inconsistencies exist which present problems.

Articulation and Course Comparability

The BOR sponsored Program Review of Criminal Justice states in its final report that "the team received excellent briefing and documentation regarding the . . . Community colleges . . . articulation of the courses [in criminal justice] . . . [with the] programs of the state universities." That documentation included from SCNS a full set of printouts for the discipline with all courses listed, which included the taxonomy, plus a set of profiles.

The registrar of Florida Keys Community College wrote August 27, 1981, about the many ways in which SCNS materials were being used, including the monitoring of articulation:

> 6. We are attempting to monitor upper division course changes that affect our students. I might add that this is very difficult, especially with the change from quarter to the semester system. An example of a problem that has arisen pertains to the University of Florida and their freshman English requirement. With the change-over, it appears that the English sequence 1101 and 1103 will not meet their freshman requirements. Students transferring without the A.A. degree will be faced with an English shortage. Hopefully, common course data from the English Task Force will help to clear up this problem.

For course comparability:

> 3. Based on the course comparability study by Dr. DeCarlo--which indicated a high percentage of Florida Keys Community College courses that overlap the upper division courses--the Dean of Instruction initiated a curriculum review of all courses. From his review we hope to reduce the percentage of upper division overlap that we are experiencing . . .
>
> In ending, I would like to stress that without the data from Dr. DeCarlo's office, institutions would not be able to monitor course comparability in an effective manner and in the long run, the transferring student would be the loser.

Community of Scholars

The task forces and especially the statewide Discipline Conferences bring together faculty from as many as 37 different departments in the same discipline. At some conferences the multi-campus institutions send more than one faculty member per institution. Some faculty other than those invited may hear about the Conferences and also appear--and are welcomed. These meetings provide an enormously eyeopening experience: community college faculty meet for the first time ever the university professor who receives most of his/her students; they learn each others expectations, and swap telephone numbers. The university faculty representatives meet each other, often for the first time, and learn they are having similar departmental curriculum problems; they too swap phone numbers. The writer has seen this happen numerous times and heard faculty thank the director and staff of SCNS for bringing them together. On February 26, 1976 the former coordinator of Nursing programs at Santa Fe Community College, Dr. Carol E. Bradshaw, wrote the then chairman of the House Education Committee about her first-hand experience with some important and positive results from the initial work of SCNS:

> For the very first time I saw representatives from the major universities in the discipline sit down with members from the community colleges and private schools and actually spend two days discussing frankly and honestly how the various programs are alike and how they differ; what content was held in common; what strengths and weaknesses were paramount with each program; and, what kinds of problems nursing students encountered when trying to transfer between programs. There was a rare feeling of communion and cooperation among the groups which brought us closer together and fostered further cooperation.

Counseling and Advisement

A November 22, 1977 letter from Professor Ronald J. Clark, Chemistry, FSU, counselled great caution in using course information for inter-institutional comparisons. In closing he wrote: "My role as coordinator for advisement in chemistry has been made somewhat simpler by the common course numbering document. If this turned out to be its main use, I think most people would not worry so much." Several university faculty from different disciplines who were members of the SCNS Policy Council have informally reported how the course numbering printouts have made easier departmental counseling and advisement.

It is probably Miami-Dade Community College which has done the most to use SCNS materials in the formal advisement process. In the June 1980 document entitled "Advisement and Graduation Information System" it is stated that this system was devised after the college spent 1979-80 academic year determining the minimum skills students should have and how they should be assessed and advised.

> In order to provide the student and faculty advisor a listing of courses suggested by the nine state universities and four large private colleges in Dade County, Florida, for transfer, this system also generated outlines of suggested courses by major and university for each student. . . . Students are informed if they have completed, currently enrolled in, or enrolled for a future term in any of the required or suggested courses for transfer. This allows the student to easily compare requirements amongst the universities, and also to note how they are proceeding in meeting the requirements for transfer to the upper division colleges and universities in Florida.

Common course numbering makes this kind of computerized system possible. The local M-DCC advisors consulted the university and college catalogs for their SCNS identifiers and personally equated courses between the private institutions and M-DCC. This is indeed a monumental achievement.

In a different but quite similar way, the University of Florida has been working--experimenting--on a computerized academic advisement record. The system being tried is titled the Florida Academic Progress Checklist. Ms. Patricia Grunder, administrative assistant for academic advisement and record development in the Office of the UF registrar, wrote about this system August 17, 1981.

> The system incorporates department, college, university and State University System requirements onto one form.
>
> . . . Common course is utilized so that courses may be matched against specific course requirements listed in the catalog by colleges and departments. This matching is based on the second, third, and fourth position of the common course number. The level of the institution is not a factor in the matching process.

This system is also unique because it begins when the student enters and thereafter shows requirements to be completed, those taken, and lists summaries in credit hours.

> The Academic Progress Checklist enables a student to review all course options and requirements for their specific degree. It also allows a student to see exactly how transfer credit is applied to the program. . .. It also enables an advisor to quickly scan a contract for deficiencies. [Academic Progress Checklist, 4/16/81.]

Curriculum Analysis

Use of SCNS products can sometimes reveal problems which only an "outsider" may recognize. Early in the history of the Criminal Justice Task Force approval was obtained by the director of SCNS for Mr. Donald E. Fish to join the committee of faculty members. He was the director of the Division of Standards and Training, Policy Standards and Training Commission for the State of Florida. On January 10, 1975, Mr. Fish wrote to the director of SCNS to identify some benefits and possible problems which had been discovered.

> . . . The purpose of the numbering project was and continues to be a collection of data which will provide an inventory of available courses throughout the educational system. It was suspected that many of the career development courses offered at the community college level were also being listed in the catalogs and that transferable credit was given when students completed the course. This was later confirmed after the first computerized report listing of all courses was generated and made available to all task force members. . . It should be noted that not all community colleges are offering transferable credit.

The problem of different credit systems was the topic of a summer research project at SCNS in 1980.

On July 8, 1976, Dr. Sam L. Grogg, Jr., Education Liaison for the American Film Institute wrote Congressman Bill Chappell to thank him for his speech about Dr. Michael A. DeCarlo's successful efforts developing the SCNS.

> I heartily support these efforts to provide an integrated and cooperative curriculum base between educational institutions. Only through such a system can

> student and faculty alike explore and share the resources and expertise of their peers and colleagues.
>
> The study and teaching of the motion picture arts radically defies the traditional curriculum boundaries. Since film includes elements from all aspects of the curriculum . . . it is of paramount importance to have a system whereby courses and their subject matter can be easily cross-referenced and clearly identified by administrators, faculty and students.

The understanding by Dr. Grogg that the classification system was based on subject matter, not a departmental code, was and is exceptional.

The staff analysis and recommendations prepared by the BOR staff about the suggestions of the external team reviewing the Criminal Justice Programs in the State University System appeared in February 29, 1981. The staff analysis indicated that "the Statewide Course Numbering Criminal Justice Task Force has been working for some time to develop reasonable alternatives [lower division course sequences, etc.] to alleviate the special problems associated with training, education and transfer credits awarded therefore in the criminal justice field." The BOR staff recommendation was to "refer to the faculty and administrators of the affected SUS institutions and to the Statewide Course Numbering System's Criminal Justice Faculty Task Force the review team's recommendations concerning the addition of lower level and upper level introductory courses in criminal justice.

During a November 1980 meeting of the English task force, a faculty member from a university expressed concern because a first quarter freshman composition course at his institution was not equated with the other first quarter courses, but instead was classified as a remedial writing course. The task force agreed this decision should be reviewed; the task force explained its classification decision (according to the SCNS staff coordinator) this way: ". . . by comparing the syllabi of Freshmen English courses from various institutions, it was determined that . . . fewer pages of composition [were required] from each student per quarter than other institutions." The task force decided that further research should be conducted by the faculty of the institution, the chairman of the task force and the SCNS staff coordinator. If a mistake was found, then the tsak force agreed to change the classification of the course in question. Subsequent investigation and discussion revealed the original decision was correct, and the institution's English faculty said they were satisfied with the result. As a consequence of this entire process the faculty decided to upgrade the course by increasing the pages of composition required beginning with the 1981-82 academic year. The course was subsequently reclassified (March 27, 1981) and equated with other first semester Freshmen Composition courses.

One of the best examples of inter-institutional curriculum analysis prepared with SCNS materials emerged March 27, 1981; Dr. Mike DeCarlo had earlier received a request from a Department of Education official, Dr. Phil Goldhagen, for some kind of report about the undergraduate English, Mathematics and Computer Science courses. The stimulus for the request was the proposal by Senator Jack Gordon of a Rule to require a minimum number of hours of English writing and computation courses. Subsequently data were generated through user programming, received, reformated and typed as tables. Each table summarized for the individual (37) public institutions the number of courses it offered by subject prefix within each discipline. Thus, English Composition (one of six English prefixes) was shown to have 167 courses listed at the 28 community colleges plus 30 at the five universities with lower divisions. The charts also revealed that 64 remedial English Composition courses were listed at 26 community colleges; this number is included in the total of 167 reported first. There were 10 remedial courses listed for six universities, one apparently being an upper division institution. The State Board of Education members were recently informed of this data as background information for their deliberations on the proposed (Gordon) Rule.

In the vocational field, Florida has taken a lead in developing learning competencies for vocational courses.

The assistant director of SCNS has been working with Dr. Mildred Lennertz who is a director of a project to identify major topics and competencies for Home Economics courses. She reported to her committee March 27, 1981, that "over 100 of the 400 home economics courses in the Common Course Numbering System have major topics and competencies identified and over 70 programs have surfaced."

Large community colleges have found a variety of uses for some of the SCNS products. "The Comparability Reports mentioned in your memorandum were received by the College (FJCJ-Jacksonville) at an earlier point and have been most helpful to us in identifying areas for focus and with regard to curriculum and articulation." This same letter, from the executive vice president, invited Dr. DeCarlo to come to the College this fall and talk to them about statewide issues related to FJCJ's efforts at planning and review of their curriculum. Thus, product, service and expertise were all tied together in this case.

The curriculum development and review process has been impacted in several not so subtle ways by SCNS. The requirement that syllabi be submitted with new courses seems to have stimulated many community colleges and universities into becoming more systematic. Some faculty who have had to prepare syllabi, fill out the simple one page new course form and send them to SCNS ("Tallahassee") claim this to be unnecessarily bureaucratic; these persons are obviously unaware of the curriculum standards of the regional accrediting association, the Southern Association of Colleges and Schools. When it is explained that the keeping of files of course syllabi is required by SACS as a minimum practice and that it is a good curriculum management practice, most institutional administrators have perceived several benefits from it. An example comes from a report by the Registrar, Mr. William Rudy, of Florida Keys Community College (August 27, 1981):

> 2. The Dean of Instruction has changed the procedures in curriculum development to include common course number recommendations from appropriate faculty and Department Chairmen. This necessitates that these individuals work with me in number selection. Also, new courses cannot be approved by the curriculum committee until all data has been submitted. This includes course proposals, common course transmittal sheets, etc.
>
> 4. We are running complete checks on our course master file based on the printouts from common course. Discrepancies are being corrected and data errors submitted to Tallahassee.
>
> 5. We have initiated a program to remove courses from our master file which have not been offered in three (3) years.
>
> As indicated, we are really just beginning our efforts to improve curriculum and course comparability. We will rely heavily on data received from Dr. DeCarlo's office to keep us informed. . .

Funding Methods and Student Costs

The FTE funding formula for universities has relied heavily on the classification of courses by level, which is determined by the first digit of the course number. This was to have been one of the primary reasons why the BOR staff originally supported the SCNS. However, it was dependent upon each statewide classified course being assigned a first digit, instead of each institution assigning its own, as is now the practice.

Other funding mechanisms do use SCNS courses. An example, and probably a unique one, was found for the building construction programs. The SCNS staff coordinator for this field of study, Dr. Guery Davis, has been asked over the years to assist in this matter by obtaining headcount enrollment data from both the community college and university systems. Here is an explanation of the process prepared November 6, 1980:

> Each year the Construction Industry Licensing Board collects two dollars for each contractors License issued in the State of Florida to be used in Building Construction Educational programs. Half of the money is given to educational institutions in . . . Florida to be used in graduate research. The other half of the money is given to institutions to use for continuing education and credit BCN courses. The money is distributed through the office of the Associate Deputy Commissioner. . . Florida, Department of Education, by the Construction Industry Advisory Committee. Last year the fund distributed over $100,000 to institutions, both public and private, who offer BCN courses.

Another aspect of funding is the cost which students must pay. Mr. Jeff Borg, president of the student body at Miami-Dade Community College, wrote a letter to Dade County

Legislative Delegation April 21, 1976 outlining what he saw as the relationship between common course numbering and the cost of education.

> One of the new system's many advantages will be greater economy both for the State and for students. Currently, when students transfer from one institution to another, they very often must take extra courses at the new institution to satisfy requirements they thought were satisfied at the previous institution.
>
> The confusion--both by students and by their academic advisors--is largely because similar courses throughout the State currently have neither the same course numbers, nor, in many cases, similar course descriptions. For each extra course that a student must take, he pays from approximately $36 to $90 more and the State pays roughly twice that amount.
>
> When the cost of each extra course is multiplied times the number of extra courses per transfer student per institution times the number of institutions in Florida, the total in wasted dollars more than justifies the cost of continuing. . .the common course numbering project. . .

Regional Analysis and Course Comparability

Colleges and universities often find it necessary to make regional comparisons of course offerings and programs. To say that SCNS makes this possible in a very systematic way is to massively understate one of the most important uses of the course data bases. The matter of course comparability or uniqueness is usually at the heart of analyses which are structured regionally or statewide.

After the computer programs became operational to generate the Equivalency Directory tables and the Comparability Reports, regional analyses were included in most of the Discipline Analysis Working Papers prepared in 1979 and 1980.

In December 1979 the Final Report to the ad hoc Joint Legislative and Executive Commission on Postsecondary Education utilized SCNS prepared tables of course comparability between the community colleges and universities for the entire state. On page 49 of the report, "A Call to Action," the authors (from the Academy for Educational Development) commented about another consultant's report concerning whether lower division should be added to the upper division universities.

> This report did not attempt to discover what overlap currently exists between lower division courses in the community colleges and the upper division institutions. Table 12 shows that approximately five to 10 percent of the courses on most community college campuses are "comparable" to courses taught at the upper division of the State universities. Inversely, as shown by Table 13, four to 10 percent of the total upper level courses offered at the universities are "comparable" to courses at the community colleges. It should be noted that the community college course base includes occupational programs.

Perhaps the surprising thing about the use of SCNS data in the "A Call to Action" report is that it resulted from officials in the Department of Education recommending the data, not by persons working in the Divisions of Community Colleges or Universities.

Two examples of regional analysis indicate the specific use of SCNS data bases. The first comes from the director of institutional research at Tallahassee Community College, Mr. Archie B. Johnston. He wrote that on November 14, 1977, he was faced (as the Equal Access/Equal Opportunity Officer for the college) with the need to determine the extent of duplication in the curricula between his college and FAMU and FSU. With a call to SCNS and its staff computer expert, Mr. Johnston discussed his needs; he reported that "In a matter of hours he [SCNS] called and said the printout was ready" with data for TCC and FAMU. At the end of the next day Mr. Johnston said he stopped by SCNS and also obtained the printout for TCC and FSU courses.

> I've gone into this explanation as another example of the use of the CCN. In this instance, it quickly resolved an almost improbable problem which would have taken days of examination of course catalogs.

In another letter dated November 28, 1977, Mr. Johnston explained that he found 41 courses common among TCC, FAMU, and FSU; 45 more were common between TCC and FSU; and 32 more were common between TCC and FAMU.

> From the above, it may seem that, to date, almost half (42.60%) of the courses offered at TCC have been identified as comparable to courses offered at the universities.

Another set of regional course data were prepared for the voluntary Southeastern Florida Educational Consortium in Miami, Florida; it includes Broward and Miami-Dade Community Colleges, Florida Atlantic and Florida International Universities, and two private universities, Nova and Miami. Dr. Richard H. Konkel, the then executive director, wrote September 25, 1980, thanking Dr. DeCarlo for the quick and thorough response to an earlier request for regional data about comparable courses.

> Indeed, the Common Course Numbering project has been an invaluable help to us in improving communication, cooperative planning and coordinated delivery of courses (and programs) among our Consortium institutions. . . .that is, for each interfacing academic program between the two community colleges and [FIU] we have designed a coordinated and continuous two-plus-two (associate-baccalaureate) program for students. . .
>
> I would offer the following suggestions for your consideration:
> 1. the Common Course Numbering project should be extended to all postsecondary course/program offerings in the state--including the independent and proprietary sectors (sharing in Tuition Voucher Funds) and vocational/occupational education.
> . . .
> In sum, I am saying that the Common Course Numbering project has and should continue to provide complete and comparable data needed by institutions serving the same general populations and streams of transfer students; . . .

Student Transfers

Facilitating the transfer of students is one of the ultimate goals for the SCNS. This goal is achieved on an individual ad hoc basis as students attempt to take courses which are common to those at the four year university they plan to attend. The goal is also achieved when students transfer en masse with an A.A. degree and are not required to retake courses completed successfully when the courses are common to the lower division of a four-year university.

When students understand the automatic transferability of most courses with common numbers it may serve as an incentive to find matching courses at the four year university before they attempt to transfer. The director of SCNS helped his daughter learn how to do this and so has the writer, who helped both his daughter and son-in-law. Faculty colleagues who aren't happy with a state system of course numbers have nevertheless sought information about this process so that they too could aide their offspring and those of neighbors seeking help. On June 17, 1979, one of the SCNS staff members became engaged in conversation with an FSU professor.

> As we discussed. . .our respective jobs he volunteered the comment that although some faculty members had expressed concerns about the Statewide Course Numbering System, he himself was a supporter and could see many positive applications for it. In fact, he said, his daughter, presently a student at TCC, had used our information to try to find a geology course that would transfer, without problems, to FSU.

An analysis of the experience of a cohort of community college transfer students who had entered any of the nine Florida universities was reported in November 13, 1979. Mr. Russell Gilbert, the coordinator for the SCNS at Santa

Fe Community College, decided, he wrote, that as he was preparing to attend a periodic SCNS meeting of institutional liaison officers scheduled for early December he found one question emerging: "Is the Statewide Course Numbering System working?" Trying to answer that question led to a unique project titled "An Analysis of Duplicated Course Work by Former Santa Fe Community College Students in the State University System." Because the Fall term, 1978, was the first quarter in which SCNS course numbers were used on the records of students in the nine universities, that term was used for the analysis. "In the Fall term, 1978, there were 1380 former Santa Fe students taking 4,787 courses in the State University System. These same students had taken 24,380 courses at [SFCC] prior to entering SUS." A total of 48 duplications were found, but 31 of these were not transferable because 17 had non-passing or audit grades at SFCC and the remaining were non-equatable fine arts or 900 seminar-type courses. Another set of five course duplicates originally had grades of "C" or "D" at SFCC which may have prevented their transfer. The remaining 12 were spread almost randomly: 2 in political science, and 1 each in the social sciences, geography and history; 2 in health related coures, and 1 each in corrections counseling, education, and speech; and 1 each in accounting and art appreciation. Thus only 12 courses without a taint of poor grades were found. This number represented only 0.25% or one-quarter of one percent of the SUS courses taken.

> Based on these low percentages and the assumption that even part of these genuine duplications were either a knowledgeable decision on the student's part to either review or strengthen competencies in a particular discipline or that the students and their advisors were unaware of the duplication, it is apparent that the Statewide Course Numbers are being recognized by the State University System for transferability and that there is almost no occurrence of Santa Fe students being required to retake courses that are equivalent under SCNS guidelines when successfully completed at Santa Fe.

It ought to be said that a few higher education officials believe some transfer students retake courses so as to raise their grades; no one reported that any studies had been done about this matter so it can't be used as an explanation for the 12 unaccounted duplicates, but neither can that motivation be ruled out.

In an updated report on the above system of analysis, Mr. Gilbert wrote (August 27, 1981) that he, in conjunction with six other community colleges, are enlarging and modifying the basic system so that any of the 28 community colleges can use the same computer programs. Thus, in the next year or two, the community colleges will be able to pinpoint where course duplication is taking place and investigate its causes. The programs are part of the Articulation Research System of SFCC.

Mr. Gilbert also explained that another innovation is underway:

> As an aid to curriculum evaluation at the community college, a product is

> being developed to compare a former community college student's performance in particular courses or sequence of courses at the community college with "related" coursework in the State University System. To determine what constitutes "related" coursework, the Statewide Course Numbering System's Taxonomy hierarchy is being used. This Curriculum Evaluation Project is scheduled to be operational in November.

The curriculum project will probably be the first to use the structure of the taxonomies for analytical purposes. One gets the impression after searching and studying the documentation of utilization that the only thing not reported is the *recycling* of paper products and microfiche.

C. Partial Utilization and Non-Utilization

Two organizational components within the Department of Education make no use of SCNS outputs; these are the Offices of Educational Facilities and Teacher Certification. Almost two years ago the registrar from the University of Florida reported he had heard there was an investigation being made to determine if SCNS course identifiers could be used to uniformly classify all educational facilities. The SCNS was not designed to incorporate the codes for the enormous variety of space classifications; the laboratory suffix code to SCNS course numbers probably stimulated the thought that each course could carry a code for the intended instructional mode and facility type. Perhaps such information could be included on the Profile for each course.

The lack of use of SCNS materials in any systematic way, if at all, at Teacher Certification probably represents a failure of substantial proportions. This functional application was one of the first benefits to the State conceived by the director of SCNS. He had many conversations, as did the staff, with analysts, coordinators, consultants, and directors over the years. However, the extensive turnover of supervisors and administrators has seemed to have removed whatever understanding existed at any point in time. Changes in the physical location of the offices and constant revamping of the teacher certification requirements, which aren't over yet, seem also to have blocked use of SCNS outputs. What makes this a double tragedy is that Teacher Certification is now located on the floor below the SCNS in the Collins Building. A number of practices of the teacher certification staff have come to light over the years which would seem to make such products as the Course Equivalency Directory an invaluable tool. Furthermore, at little expense they could tie into the SCNS data bases with high speed terminals. If and when SCNS gets the Profiles for all courses on-line it would even seem plausible to add special comments about teacher certification curricula approvals, substitutions, and so on. Teacher Certification decisions have reached SCNS for comment in which faculty-determined equivalent courses were denied as being comparable. Even the Articulation Agreement Rules have recognized the validity of the comparability decisions of faculty task forces; and its

Committee has not hesitated in asking the faculty task forces to review their work when questions arise, as they should. Perhaps a course comparability provision needs to be added to the Rules of the teacher certification process.

The Divisions of Community Colleges and Universities have made occasional use of SCNS materials and referred relevant matters to the SCNS staff. The Division of Community Colleges has used some materials in their accountability standards projects. Trustees, new and old, have been informed about the kinds of information SCNS can provide; they were given in one orientation session a list of questions which they could ask about the curriculum and for which answers were available through SCNS outputs. Whether this has been beneficial to the trustees or their individual community colleges is unknown at this time. Perhaps, because some college presidents sit in on these sessions, some positive results have been achieved, or at least some consciousness has been raised about the extent to which rational management of the curriculum is possible. In recent years Dr. DeCarlo regularly delivered explanations accompanied with examples about the kinds of planning and analysis which were available through the use of SCNS outputs.

The chancellor's staff at the BOR offices has made use of SCNS course data files to examine the similarity of courses and programs among FAMU, FSU and TCC. These studies were done for specific disciplines when the

Federal Civil Rights Office wanted FSU to give up certain of its programs to FAMU as part of State's plan to desegregate and remove the vestiges of the old dual system of higher education in the Southern states.

Program Review Problems

The academic program review activities of the BOR Chancellor's staff has occassionally provided helpful information to outside faculty consultants. This was certainly the case for the Criminal Justice review. However, several of the consultant's reports, namely Psychology, contain information so patently wrong about SCNS that it is a wonder any responsible higher education officials would let it stand uncorrected. What seems so unfortunate about this is that the SCNS was neither consulted by the outside psychologists to learn the facts and the chancellor's staff made no effort to permit a review of the report in its final draft stage, where the errors and untruths could have been set right. If each university has an opportunity to respond to the descriptions and recommendations by the outside experts of its program, it would seem only fair, just, and a contribution toward the pursuit of truth that SCNS be allowed to respond to the comments made about itself. The erroneous remarks about the SCNS in the Psychology report were thought to be inappropriate by almost all university faculty who had seen them and were attending the SCNS

Discipline Conference. This reaction and individual reports to the writer, make it appear that one faculty member was able to sway the drafter (an outside expert) of the consultant's report to include the erroneous and misleading information.

This situation with Psychology is not an isolated example. Even the Criminal Justice report contains an attribution to SCNS which is almost incomprehensible. In this instance the outside consultants were correctly briefed about SCNS and given a variety of products which the consultants praised. The issue in question occurs when the unqualified statement is made that the second most important reason for a decline in enrollment at the FSU College of Criminology is the existence of SCNS; this point was then repeated in the statewide recommendations, giving it yet another measure of importance in the review. It is difficult to take very seriously the output from these BOR sponsored external program reviews when they contain such egregious statements.

What is being suggested as the connection between the enrollment decline in Criminal Justice at FSU and SCNS is this: the automatic transferability of courses makes it possible for a student taking a criminal justice course at a community college, which has the same SCNS prefix and last three numbers as one at the junior or senior level at

FSU, to be excused from having to repeat that course. This, of course, reduces the number of FTE student credit hours and may impact funding. Students who are not given full credit for these common and comparable courses, the analysis says, feel they have been "ripped off" at FSU and spread the word that any other university would treat students better; this reaction then is expected to lead to a decline in enrollment. This is, to say the least, a plausible explanation. It is even partially verified in the consultants report which said that many of the students they talked with were openly hostile and were angry because they weren't given full credit for the criminal justice courses taken before they arrived at FSU. Unfortunately, blaming SCNS for this problem is like attributing the death of a stomach cancer patient to a pain in the belly. Surely such faculty reasoning should not stand unqualified. For example, it is much more accurate to attribute the decline in enrollment to these three phenomena: (1) an incremental increase in salary paid to policemen almost everytime they take a vocationally related training or college course; this had led most community colleges to offer such courses and then full programs, especially when the federal government wanted to subsidize and stimulate more and better training. (2) The criminal justice field began to grow, expand and add depth from the social sciences and other academic disciplines. This often led community colleges and other institutions to develop academic programs for credit, first by converting some training courses to credit and then by creating new academic speciality courses for credit. This process sometimes led to the practice of converting previous training courses to credit offerings but without adding the academic depth and breadth which was appropriate. That this happened in Florida was for the first time documented statewide in the SCNS course inventory reports. This fact is documented in the letter from the director of the Police Standards and Training Board of January 10, 1975, which appears above on page 160. Thus, SCNS was seen as helping in diagnosing a somewhat questionable practice. However, this practice was never fully investigated by the universities or made public nor were unambiguous course characteristics defined in higher education terms so that clear distinctions could be made between adult vocational and college credit criminal justice courses. In fact the LEAA grants and university FTE funding probably got in the way of any serious efforts to make sure that criminal justice courses for credit were academically respectable, i.e., if they could not be made such they still might have been retained to generate funds. What did happen is that the growth of criminal justice and police training programs generated a great need for qualified instructors; FSU's criminal justice program supplied a sizable share of the graduates who became teachers in the many programs at the community colleges and the other universities.

(3) The natural consequences of all of this growth was to find FSU graduates moving into what these newly created academic criminal justice programs at the community colleges. Their education at FSU had prepared them so well that they began teaching courses at the community college which contained many of the academic criminal justice subjects still taught at the upper division at FSU. The former chairman of the program at FIU explained to the writer a few years ago that this occurred in the criminal justice program at that institution. At FIU she acted by upgrading the then traditional criminal justice courses taught at the upper division (which were now appearing at most community colleges) and obtained new SCNS course numbers for them. Revitalization of the curriculum at FSU has been underway for several years, as it continues to cope with the preceding problems and emphasizes its strong graduate research orientation. Here, then, is a most fascinating situation in which a university (or two) had been so successful that it upgraded the training and education of policemen statewide; unfortunately, its success (not SCNS) led to the creation of associate degree programs all across Florida in which the instructors adopted the upper division courses they experienced to the needs of lower division police training programs.

This lengthy digression has been presented so that it could be considered as a much more realistic and rational explanation for the declining enrollment in FSU's criminal justice programs. The above analysis, not explicated in the consultant's report, for the program review indicates that (1) rewards for training, (2) program expansion to meet the rising professionalism of practicioners in the society and (3) development of an excellent advanced professional program at FSU have all been forces to make the training of first line criminal justice practicioners a function of the community colleges and some postsecondary vocational programs. For students who don't understand this hierarchy it is not surprising that they may be angry. Furthermore, it can even be understood why they may claim they have been cheated out of credits. Perhaps better communications all the way around would be helpful. Note that these kinds of issues have not appeared before the Florida Articulation Coordinating Committee.

And, finally, note that the writer became interested in this discipline a few years ago, used SCNS data and staff-compiled reports, then prepared a Discipline Analysis Working Paper. Several task force meetings were attended, faculty members were interviewed and explanations sought for the very large number of dual-level courses found in the discipline. The above explanation for the enrollment decline was developed at that time. Any head of a criminal justice program could have systematically conducted the same form of analysis and subsequent investigation. It is almost certain that SCNS would not have been blamed falsely for declining enrollments.

Misunderstandings and Non-Use of SCNS Data

Many of the reasons for erroneous information being written about SCNS center on the significant lack of understanding about the System. These misunderstandings often become blocks to others using, or effectively using, the outputs of SCNS. Recently, the director of SCNS had to repeat the same explanation in answer to a problem which had surfaced 15 months earlier. The problem was brought to the attention of university registrars; it arose from a Veteran's Administration directive which stated that when undergraduate courses are certified for graduate credit, additional work should be required of graduate students and that the universities should indicate this by a different course number in the university catalog. On May 29, 1981, the SUS Registrars and Admissions Officers said they could not do this because the undergraduate course requires a specific number. The answer, for someone who understood the SCNS, was that the registrar could change the first numerical digit and list the new course identifier in the graduate portion of the catalog. A notice could be listed, or footnoted, to the undergraduate course which said something like: "Graduate enrollment permitted; see ____," which would be the graduate course number. (This solution assumes that graduate students are required to do extra work for the same credit.) Because this solution is so obvious it must be assumed that the catalog doesn't clearly designate undergraduate courses which can be taken for graduate credit. Or, the administrative effort required may not have been thought to be worth the benefits to be realized. This very situation may be the only one for which the variable first digit is a ready solution. The minutes of the meeting of registrars revealed no discussion of this solution, even when some members had been informed of it many months before by the director of SCNS.

There are a number of institutional administrators and faculty who believe there are no benefits from SCNS; they may or may not have any knowledge of the products from SCNS. One university liaison officer made such a statement in an interview. A faculty member at the same university serving as head advisor for about 2000 new transfer students each year passed the same judgment. He wrote a concise list of random thoughts which ended with this judgment: "My final assessment [after extensive criticism of SCNS] is based upon 5 years of daily experience with the system are: It failed as a system to enhance communications between students and advisors, regarding the students' program." Apart from the questionableness of this judgement as a blanket assessment (see the reports from Miami-Dade and University of Florida above), the judgment may be premature at his own institution. The list of criticisms was so well written that a call was placed to the head advisor's office to ask permission to include it in this report. It turned out the advisor had returned to the ranks of the teaching faculty and so a discussion ensued with the senior advisor there. To make the account short, she knew nothing about the Course Equivalency Directories, had never seen any microfiche from SCNS nor knew anything about any of the other products. When they were described to her she thought they ought to be helpful. Because this university has such a large service area and therefore many feeder community colleges, it would indeed appear that some SCNS products could be very helpful. This situation is so sad because it seems to result from unreasoning intransigence. What is even more obvious is that these persons seem to be unwilling to systematically investigate the potential benefits from use of SCNS outputs. It is even possible that the mechanical aspects of advisement at this university (as stated at the University of Florida) could be handled more accurately and efficiently thereby leaving more time for personal discussion with the student.

In the last several cases it should be evident that the welfare of the student comes somewhere down the priority list of concerns of administrators and faculty.

This attitude is quite in contrast to the examples given in the preceding section.

Summary

The current uncertainties about the SCNS data bases result from calendar conversion at the universities and from the Legislature's recent instructions to add vocational courses to the course inventories. There also appears to be a strong possibility that more institutions may be listing courses locally which have not been entered into the course inventory or, inversely, there may be many courses in the catalogs, numbered like SCNS courses, but which are not college credit courses, and unlikely to appear in the SCNS course inventory as presently organized. Auditing of a local institution's course listings may be an appropriate way to assess whether the SCNS course identifiers are being used appropriately.

The utilization of SCNS products and services is extensive; furthermore, many more current examples of actual utilization were found than those reported for earlier years. These real examples of utilization provide sufficient evidence that many are being developed and refined even when some of the administrators and faculty are still saying that no identifiable benefits can be attributed to the products of SCNS. Misinformation and misunderstandings about SCNS still abound in Florida.

Perhaps the best utilization of the course inventory data was identified in the Santa Fe Community College study. The analysis of the courses which SFCC graduates took the first term after transferring to the nine state universities revealed that only one-quarter of one percent (0.25% or 12) of the SUS courses taken were duplicate course enrollments. That study alone indicates that SCNS is working. It also may indicate that SFCC administrators and faculty are working very hard to make sure their transferring students are counseled and advised realistically, that they follow-up and take corrective action to make sure the student has no "mechanical" problems when moving to the university. If SCNS is only a part of the total effort to structure successful transfer of students, then it ought to be said that it is achieving one of its goals. It cannot be overlooked, as the director of SCNS has been saying so often, that it is the feedback and corrective action taken after problems are identified (after using SCNS materials to analyze what is happening) that can be the real achievement flowing from SCNS.

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CHAPTER VI

PERCEPTIONS, PROBLEMS AND PROSPECTS

This chapter reports the perceptions of the institutional liaison officers, responses from a mail survey of 193 faculty (two-thirds of whom are department chairpersons and the remainder task force members) and the results of personal interviews with State government education staff persons. Information from some documentary sources is also reported.

The reader should be aware that this chapter is but another part, although the last one, of a policy and program evaluation study of SCNS. The previous chapters provide factual information about SCNS, most of which apparently has not been available to many other persons. Thus, because some of the opinions reported below might be considered misinformed, erroneous, or idiosyncratic, interpretive comments have been included to provide some meaningful content when that seemed appropriate. An accurate and thorough understanding of SCNS appears to have been difficult to communicate for many years. The faculty are, however, seriously concerned about SCNS; they seem to be concerned about the possibility that SCNS has, so to speak, frozen into permanance some problems they have been unable (or unwilling) to resolve, e.g. equated courses taught by faculty with different credentials.

This chapter is organized into sections which roughly parallel the subject matter of the earlier chapters. The previous chapters presented SCNS as it exists; now information will be offered about how SCNS is perceived, especially by those who have some regular contact with its staff and outputs.

A. Operational Aspects

This section is concerned with matters relating to the operation of the SCNS and movement toward its goals. The group of persons SCNS works with most regularly are the institutional liaison officers. They were questioned by mail and telephone about the service they received from SCNS staff; details about the survey may be found in Appendix D. Data and information from the survey of faculty are also presented; see Appendix E for details of their survey. The difficulties of cost-benefit analysis and the results of unit cost analysis complete this section.

Liaison Officers

The overwhelming response from the liaison officers was that SCNS staff was very helpful, knowledgeable, and made a serious effort to always provide a timely response, whether to questions, new course classifications, or the give-and-take in resolving disagreements. A few isolated remarks were made about the faculty task force members who sometimes seemed not well informed when making decisions about the classification of new courses; what seemed to be suggested was that the staff could help alleviate this problem. Several college and university liaison officers said that they had had protracted differences over the assignment of prefixes and numbers to a few new courses; however, these comments were always given as examples of normal difficulties encountered which they thought were to be expected; they even said these disagreements didn't spoil the excellent working relationships between the SCNS staff and the liaison officers. Several liaison officers indicated they themselves apparently did not do a very thorough job in selecting appropriate prefixes and numbers for new courses, which was at the root of most of the protracted negotiations. At least two and probably three more officers indicated they accepted whatever prefix and number was sent by one of their faculty members, a chairperson, dean, or any other academic person; they did so without checking to see if the number was available, or if the course logically and substantively fit the taxonomic location requested for the subject matter of the course. Some college liaison officers indicated that they controlled their frustration and resentment over the fact that the faculty task forces could impose changed prefixes and course numbers on them without their input; one leading university

(UF) has been voicing this sentiment for many years. In this matter, the liaison officers seem to assign to the SCNS staff some responsibility for taxonomy changes. The English taxonomy which has been substantially revised had been distributed a few weeks before this survey and it was causing a great deal of additional work for the registrars and other officials. They had to change all of the references to English courses in the front of their catalogs where program planning is detailed. This chore, it was said, is much more onerous and expensive than changing a course title, credit hours, or inserting a new course in the back section of a catalog where course descriptions are listed. Registrars and others who work with course files have a very great need, according to liaison officers, for stability and predictability in their workload and in the identification of their courses. One or two institutions indicated they were attempting to design systems of permanent numbers for their courses so that no matter how many times the State system changed the prefix or number of a course, the local course would always have the same local prefix and number. One college is apparently using something like their old style course numbers in this way; the increasing storage capacity of the new mini computer seems to have made it possible for this kind of dual-course numbering to be used effectively. Whether it is a deliberate attempt to thwart SCNS is an open question. Incidentally, this same college admitted after inquiry, that it had just finished converting all of its records to the exclusive use of new SCNS course numbers. This is about six years later than required for the other 27 colleges or the nine universities; the latter reluctantly converted all courses under a threat of a funding cut by the State Legislature, then was not permitted to continue listing old course numbers beyond 1977-78.

Several SCNS staff members and the director were mentioned by name as being helpful and voluntarily making extra efforts without the liaison officer asking for such help. It appears that this welcome behavior by the SCNS staff substantially offsets the mildly bureaucratic characteristics of the SCNS seen by some liaison officers. The use of separate forms for new courses and another for changes in courses, plus having to send them to Tallahassee and SCNS, were all seen as indicators of increased bureaucratization. Other liaison officers saw these added procedures as a very slight burden and only a mild inconvenience. The faculty and chairpersons, as reported by liaison officers, thought these procedures to be very bureaucratic. All of the "bureaucratic" comments seem to be a bit strained because all of the information requested by SCNS is already required by every institution.

In summary, all liaison officers reporting thought the services were very good from SCNS, with some occasional delays in working out the assignment of a new prefix and/or number. One long-time, multiple-campus, large-college liaison officer volunteered a comment that there seemed to him to be too great a turnover in SCNS staff and task force chairpersons (faculty); this reduced the ability of the System to respond quickly and accurately, he said, and ought to be made clear to all who are interested in improving the System.

New Courses

The problems of prefixing and numbering new courses became evident in the statements about occasional disagreements. By indirection several liaison officers indicated they probably should have required more information of persons submitting new course proposals. Several said they accepted whatever had passed through the institutional curriculum committee; also, that course proposals may have been incompletely documented in comparison to the institution's own rules. It was not surprising that their proposals could end up with a far-out prefix and number. Several officers indicated they are now having an assistant check the materials going to SCNS with a new course form to make sure they are complete.

All respondents thought the current requirements for new course documentation by SCNS were sufficient--if adhered to--to provide enough information for a correct classification of a new course. None thought too much information was required. Two or three liaison officers seemed to indicate that they would like to hold back proposed changes to their courses, and, therefore, from the statewide inventory, until they knew the relevant faculty task forces were about to meet. This was considered by them as a reasonable means to cope with the ever changing course prefixes and numbers, but it could lead to bulging workloads at SCNS one week and none for other periods. A variety of individual suggestions indicated the liaison officers were trying to make the system work for their institution, but with the least disruption to their local procedures. As they learned how SCNS functioned in regard to other institutions, they were agreeing that the whole process was predictable. However, they weren't certain that the information on the SCNS new course or change forms helped their own internal course review and approval process. They also did not see SCNS materials contributing to better curriculum analysis or academic decisions; several liaison officers spoke with authority here because they served as the chairperson or staff official who worked with the institutional curriculum committee.

A few liaison officers made it clear that faculty or administrators personally involved in proposing new courses thought the additional forms and notice process to SCNS was indeed the cause of an unnecessary delay, which was usually about one semester in the community colleges. The liaison officers had earlier said that few delays were evident from

SCNS procedures, so the nature of the delay mentioned is uncertain.

Faculty Views

To obtain another view of the institutional liaison officers two questions were included on the faculty survey. The first (#11) asked: "Is there someone in your institution who can be called on to provide you with help in selecting an appropriate course number?" Seventy nine percent (79%) indicated there was and 90% of them gave the job title or name of the person. In all, 7.2% didn't answer this question and 13.5% checked that there wasn't anyone who could help them. From the experience of coding the data initially it appeared that most FIU faculty were at a loss to identify anyone, the SCNS staff had had the same problem! At the time of this writing, FIU may again have designated someone to perform this function, which is that of an institutional liaison officer to SCNS. Incidentally, no one, but no one, called his or her institutional contact person the SCNS liaison officer.

One of the things which an active institutional liaison officer could do would be to arrange information sessions about SCNS for faculty. They might conduct them, other officials from their institution might do so, or an SCNS staff person could perform this service. For this reason, a three part question (#13) was asked: "Have there been any workshops, training sessions, or orientations at your institution for faculty or staff about the:

	Percent		
	Yes	No	No Response
Course numbering system	20.2	62.7	17.1
Conversion procedures	40.4	43.6	16.0
Articulation matters	23.3	54.5	22.2

Clearly there has been some kind of articulation activities, but only one out of every five faculty indicates a knowledge of them; none were asked or volunteered that they had attended any such sessions. In a related vein, two out of five faculty indicated some special activities were held locally about the conversion of courses to the semester calendar. Notice that more faculty were aware of articulation meetings than were noticed for course numbering sessions. A conservative interpretation of these data would suggest that a high level of awareness (84%) by these faculty, who are mostly chairpersons, should be much greater than that for other departmental faculty. For the chairpersons, institutionally sponsored sessions might help identify effective coping strategies to reduce course change delays, etc. But apparently the institutions don't see it that way. Perhaps the chairpersons aren't aware of any need, or of one which can be satisfied easily, or that such sessions might be helpful.

The faculty responding to this survey numbered 193. Their academic homes were in 94 different named departments; however, they identified themselves as coming from 78 disciplines or fields of study. These amounts should be compared and an important fact noted. The data represent the case made by the first director of SCNS that by using subject matter prefixes, instead of unique departmental abbreviations, the number of prefixes could be reduced throughout the State. The assertion by the faculty in any particular department that they now have several ("too many") prefixes is also correct; this occurs because the volume of the subject matter was so great or diverse in some disciplines that several prefixes were required to fully inventory and classify the courses. As a way of determining the familiarity of faculty with their discipline's course classifications and prefixes an item about them was included in the survey. It asked for: "Speciality: subject matter alpha prefix(s) of your sub-discipline(s)." The responses indicated 56.6% were able to identify at least one alpha prefix; 28.5% decided not to respond and another 15.0% made some comment. As for multiple prefixes, 6.2% listed six or more. One can't help wondering if the multiple prefixes are criticized largely by a very small group of faculty. That is, those who cited multiple prefixes for their sub-disciplines or specialities totaled only 14% of the faculty respondents. This might be a representation of those who really were affected directly; it must be realized, though, that faculty who counsel students have apparently found it very difficult to learn the many prefixes used for courses in the other departments of their institution.

Finally, there is the remaining fact from this analysis: 43.5% of the faculty repondents either wouldn't or couldn't identify a single alpha prefix. Perhaps this percent might be taken as an indicator of the extent to which an SCNS prime characteristic has not penetrated the consciousness of this very important group, the faculty who are department chairpersons or task force members (plus a few administrators). Perhaps a reduction in this percent could become a joint goal of the SCNS staff and the institutional liaison officers.

Cost and Benefit Analysis

Almost all reactions and perceptions by faculty in the nine universities over the past four to six years have included some statements about the cost and expense of SCNS. These should be contrasted with the reports in the previous chapter which indicated that registration of students and evaluation of transcripts have been made more efficient; that the new counseling and advising systems emphasize the transmission of more accurate data to students, who then may focus on their long term program needs; and so on. These are benefits; their value may depend upon the role of the person viewing them. That is, if one does not value very highly the benefits listed above (and the other benefits indicated in Chapter V), then one should expect to find assertions (without supporting facts) that the costs of SCNS are greater than its benefits.

When faculty make low assessments of the benefits of SCNS they are representing the opinions of only one set of interests. In fact, there are four parties at interest: students; their parents (who also are taxpayers); the state legislators and executive budget officials; and the faculty. Any of these groups may attempt to assert their priorities over those of all the other groups. In public higher education, where 60% or more of the general budget comes from taxpayers monies, it is not surprising to find State officials, students, and their parents (who pay both taxes and tuition charges) claiming a right to make benefit calculations which turn out to be quite different from those of faculty. This is not to say that the benefit calculations of faculty are not worthy of consideration, but only that in the public sector they are often seen as having no more legitimacy than those from the other parties at interest. The situation at an independent-private college or university could be somewhat different.

Apart from the bald arbitrariness of most cost-benefit concepts and calculations, there are usually several glaring omissions when faculty have addressed the benefits issue. For example, faculty who are employed full time are expected to advise students, to work on the development of courses and curricula, to serve on committees which evaluate the work of peers, and so on. Faculty who find that the Course Equivalency Directory facilitates the evaluation of students transferring into their department (as a discipline major) can and do cite SCNS as beneficial to themselves as well as to their students. If faculty are able to increase the quality of the evaluation made of a student's progress, then that should be entered into a cost-benefit equation. However, if they are unwilling to attempt to use this SCNS product or have no knowledge of its existence, then it is inappropriate to attempt a mechanical application of an arbitrary cost-benefit calculation. To suggest, as some early university faculty "studies" did, that SCNS costs outweighed the benefits was doubly incorrect because (a) the System had not been in use for an entire cohort of students for four years, and (b) products from the System were still in an early developmental stage. One must note here, though, that a majority of the transfer and native students surveyed in the early studies (e.g. at FSU) thought SCNS was helpful to them. It was the faculty who were upset, fearful and hostile toward SCNS and who were so largely uninformed about it.

The constant attempts by the State to involve itself in the internal operations of the universities, as discussed in Chapter III, has been a long-standing concern of the faculty and one to which they are atuned, regardless of the kind of program involved. However, an appropriate cost-benefit analysis, should one ever be undertaken, needs to have the issues about the operations of SCNS and its products separated from the very emotional issue of the State's role in public higher education. Quite frankly, the attitudes toward SCNS of some administrators and faculty appear to be very rigid and unreasoning; it may take several years before enough new persons are in the State University System so that an objective and appropriate cost-benefit analysis can be undertaken, if one is necessary. One could be blithely optimistic that the underlying problems will be corrected in the future which would then create an atmosphere such that senior faculty would want to conduct objective studies of the effectiveness of SCNS.

Unit Cost Analysis

The costs of operating the SCNS central office can be related to a variety of unit measures, some of which tie directly to some of the ultimate goals of SCNS. Unit cost data are usually requested, and questioned, whenever the SCNS is considered by persons from outside Florida or by local critics of SCNS. Unit costs have been calculated in this brief analysis to meet this typical need and to provide a means for assessing the magnitude of the budget. For example, the total 1980-81 budget divided equally among the

37 community colleges and universities indicates a cost of $3554.62 per institution. However, the size of Florida's public institutions varies so greatly that this amount is not representative of anything significant. A more direct method of anlysis would be to charge each system one-half of the SCNS budget and distribute the cost within each system according to the number of transfer students moving from the colleges to the universities. An examination of the data in Table 1, from use of this method, reveals that eight of the nine universities and six of the 28 community colleges would exceed the simple institutional average of $3554.62. The largest share of the budget would be assigned to Miami-Dade Community College ($12,495); second would be University of Florida ($12,046). M-DCC is a "feeder" college to seven of the nine universities; UF is the largest state university.

Another method for estimating the impact of the SCNS budget is to calculate a unit cost using the number of institutional courses in the SCNS inventory. For example, the new total of all classified courses after university conversion is about 48,350. The cost per course, therefore, would be $2.71 for 1980-81. Table 2 presents a distribution of the 1980-81 SCNS budget based on the percent of all institutional courses in the official course inventory. A comparison with the distribution in Table 1 is also included in Table 2 to emphasize the differences in the two procedures.

Table 1

Institutional "Shares" of the SCNS
1980-1981 Budget By
Percent of Transfer Students

A. State Universities (In)

FAMU	$ 1,000	UF	$12,046
FAU	5,524	UNF	3,261
FIU	9,086	USF	11,734
FSU	10,063	UWF	4,782
UCF	8,264		
		Total:	$65,760

B. Largest Community Colleges* (Out)

Brevard	$ 3,288	Pensacola	$ 3,814
Broward	4,866	St. Pete	5,787
FJCJ Jax.	4,669	Santa Fe	2,959
Hillsborough	4,143	Tallahassee	1,973
Miami-Dade	12,495	Valencia	3,485
Palm Beach	3,222		
		SUM	$50,701
			(77.1%)

*Includes 11 colleges sending 77.1% of the transfer students, selected from those colleges with 3.0 percent or more of the transfer students.

SOURCE: Transrer data from the articulation reports of the Division of Community Colleges, August 1981.

Table 2

Institutional "Shares" of the SCNS 1980-1981 Budget By Percent of Courses At All Public Colleges and Universities

Institution	Cost for Share of Courses	Difference From Transfer Cost Share*	Institution	Cost for Share of Courses	Difference From Transfer Cost Share*
A. Universities			B. Largest Community Colleges Sending Transfer Students		
FAMU	$ 5,905	$+4,905	Brevard	$2,775	$- 513
FAU	4,406	-1,118	Broward	3,985	- 881
FIU	8,654	- 432	FJC Jax.	3,051	-1618
FSU	14,454	+4,391	Hillsborough	2,551	-1592
UCF	5,669	-2,595	Miami-Dade	4,340	-8155
UF	16,585	+4,539	Palm Beach	2,380	- 842
UNF	3,183	- 78	Pensacola	2,565	-1249
USF	9,772	-1,962	St. Pete.	2,920	-2867
UWF	3,327	-1,455	Santa Fe	3,301	+ 342
			Tallahassee**	815	-1158
			Valencia	2,275	-1210
			Daytona Beach***	4,722	+3209

*A plus (+) indicates this share is larger, the reverse for minus (-).

**Although one of the 11 largest suppliers of transfer students to universities, this college has the smallest coures inventory.

***The college with the largest coures inventory; it lists an extraordinary number of seminar courses unlike all other 27 colleges. This college replaces TCC in the top 11 on this list which supply about 77% of the transfer students to the universities.

Three of the four oldest universities show an increase in share of budget; two of them (FSU and UF) have a large number of graduate and professional courses, while the third (FAMU) reports a relatively small transfer population which makes its share in Table 1 only one sixth of the amount in Table 2. FIU has about twice the number of courses of the other three upper division universities. It even has more courses than two of the four-year universities. Ten of the 11 largest community colleges supplying transfer students have the largest number of courses also. The college with the largest number of courses is Daytona Beach, but this is because it has an unusually large amount of seminar-type courses, unlike all the other 27 community colleges. Daytona Beach replaces Tallahassee Community College in the top 11. However, TCC has the distinction of having the fewest courses, which makes it 28th on Table 2 instead of 11th on Table 1.

From the above anlysis it is apparent that the cost of the SCNS is not great when computed on some unit basis. Note that the use of the measure of cost per transfer student comes close to representing an output characteristic for the community colleges and an input measure for the universities. The two together relate directly to one of the ultimate goals of the SCNS.

The use of numbers of courses as a unit measure (denominator) is best seen also as an indicator of staff workload, which in turn relates to the short range operating goals of the SCNS. Obviously, the unit measure to be used in an analytical study depends on the purpose of the analysis. It should be clearly understood that cost analysis procedures are creations of the human mind, have no intrinsic value, nor have they any connection with natural law, thus they have no inherent truth value. The creation and use of these measures assigns them meaning.

For example, if the 1980-1981 budget of SCNS was divided up among the 500 or so department chairpersons in the nine state universities each would receive $263.04. Of course, should such a reallocation be proposed, the 28 community colleges could claim a significant share; if the number of courses in Table 2 were used to compute their share it would amount to about $60,000. This would then leave a reallocation to the 500 university chairpersons of about $144 each. The total share to the nine universities would almost equal the cost of three faculty positions. Perhaps these examples suffice to indicate the relative magnitude of the SCNS annual budget. Whether one perceives it as too costly or a pittance for the good it brings depends on the interest, values and perceptions of the beholder.

B. Output Production and Distribution

Liaison Officers

Only a few liaison officers volunteered any knowledge of the range of products and services from the SCNS. Some mentioned printouts; others also mentioned the microfiche. One large college liaison person said "the printout from State [SCNS], to the best of my knowledge, comes to the Registrar. Academic deans should get a copy." Some questions arose about the frequency with which the microfiche were made available; a few persons didn't realize that the conversion of university courses made it impractical to produce and distribute microfiche during 1980-1981. Others were concerned that changes to taxonomies resulting from course conversion would thereafter induce more changes and, hence, would require more frequent production of microfiche and catalog changes. The liaison officers wanted such changes reported only once or twice a year.

Some college and university officers said they didn't receive the microfiche or, even if they did, it wasn't used for a variety of reasons. Others received multiple copies and sent them to various buildings and branch campuses; they also notified faculty and some held orientations annually or offered information to anyone who requested it. The number of institutions receiving or wanting multiple copies of the microfiche was very small. These institutions seemed to have liaison officers who saw the potential of SCNS outputs serving several purposes. Several of these "activist" liaison officers reported that they worked under a chief academic officer who had openly declared or explained his dislike for SCNS, but then declared he would not interfere with the operation of SCNS at his institution.

The few liaison officers who actually examined the microfiche and checked the Course Equivalency Directory thought it was very helpful. Again, very few indicated by voluntary comment, or after a mild suggestion, any recognition of the contents of the microfiche. One or two did complain about the difficulty of finding what they were looking for on it. One university liaison officer said he found it much easier to use the computer hook-up between his south Florida location and the Northwest Regional Data center in Tallahassee than the microfiche.

Those who did receive the microfiche and had had some experience with it almost always indicated that it was stored right beside a microfiche reader where it could be used by anybody. The "service" attitude was the predominant one in the colleges; regular service was provided at some colleges and universities where the liaison person or his assistant worked closely with the institution's curriculum committee. A few large universities had liaison officers who performed only staff functions and whose role was apparently unknown by groups of faculty and chairpersons.

Most liaison officers said the SCNS materials were made available to faculty, but they usually meant that they personally were available if a faculty member knew enough to ask for help or requested access to any of the materials.

It appeared that little or no communication flowed from the liaison person to the faculty about the kinds or availability of SCNS products or services. The mixed response to this matter led to several questions on the faculty-chairperson survey about the identity of their liaison officer, the results of which were reported above.

A few liaison officers said students knew about SCNS products, but most thought students knew little or nothing about the System. In further probing about this matter, it became evident that two different meanings were being used when the SCNS products were being discussed. First, was the understanding which was literally incorrect--that the course prefixes and numbers were the products of the SCNS; to the contrary, they were developed and are changed by the faculty in discipline task forces *if* the SCNS staff are abiding by the State law. Second, the assertion, which is correct in relation to the type one outputs produced through the System, is also correct in describing the focus of the System ("it came from Tallahassee") from whence came the conceptual origin and design of the subject matter prefix system and the "long" course numbers. The most correct specification of SCNS products and services is that it includes the course inventory, taxonomies, profiles, analyses of common and unique courses, etc. These are described in Chapter IV of this study report; sample pages of the products are included in Appendix C. There appeared to be very little understanding by liaison officers of these products and services in any holistic way, e.g., of their unique or common data elements, their potential usefulness, etc.

Faculty

The faculty were asked (#5) in their survey: "Would you like more information about the SCNS products and services?" A majority, 58.1%, replied "No"; 36.2% said "Yes." Among those saying yes, 14.0% wanted some kind of general information about SCNS; 7.0% wanted a discipline course list and 2.3% wanted various other items. Note that 13% said yes but didn't mention anything in particular, which they were asked to do; thus, slightly less than 25% wanted to know more about SCNS.

A majority of the faculty, 52.3%, checked that course numbering products or services were used when new semester course numbers were sought (#9). This left 42.0% saying "No" and 5.7% not responding to the question. Course conversion, it appeared, would have been an ideal time to consult SCNS materials, had they been known about and available.

When the faculty were asked which products or services were used (#10), only 40.9% could (or did) identify a single product, e.g., "a course inventory printout"; 45.1% of the faculty did not reply at all to any of the printouts or services listed. The second item checked as being used the most was the discipline taxonomy (31.1%); the third choice was "consulted a course numbering staff person," at 20.2%. An institutional course listing (17.6%) and the course profiles (10.9%) were also consulted. The two lowest of the choices listed was microfiche, 7.3%, and "course information via a computer terminal," zero. A few respondents made negative comments. One institutional liaison officer (FSU) wrote the principal investigator of this study to accuse him of slanting the questionnaire; the gist of the reaction was that one shouldn't have expected faculty to be using any SCNS materials in the course conversion process. That charge seemed especially peculiar because FSU had more task force chairpersons than any other university. Of course, FSU was one institution which did not purchase microfiche or send portions of it (by prefix) to the various departments in the university. The College of Education at FSU, for example, had been using a tattered course inventory printout from 1977, with all the local changes hand written on it, wherever space was available.

From the descriptions and responses in the previous sections and chapters it became evident that there are three levels in the universities at which SCNS materials can be used. The central administration and support services (registrar, admissions, articulation offices) is one; a second is at the school or college level where centralized records are kept for degree seeking majors; and, the departmental level is the third one. The first and second levels tend to require more and more information which, because it can't be aggregated in any meaningful way, means they receive more microfiche or taller stacks of computer printouts. Perhaps SCNS should send statewide a regular newsletter explaining itself to all department or division chairpersons and to all task force members. It could also be sent to all the other potential users of SCNS products and services.

C. Benefits and Goals

Benefits

Substantial agreement was voiced by many liaison officers about most of the benefits listed in section 7 of the probing questions sent them (Appendix D-1). The least agreement came on items "d", "g", and "i", with relatively strong disagreement with items d. and i. These items are listed below:

7. What are the most common benefits attributed to the System?

   . . .

   d. Provides a means for structuring studies of:
      (1) educational costs?
      (2) distribution of equal educational opportunity programs?
      (3) types of physical facilities available and needed?
      (4) the extent to which an institution has an appropriate quantity and quality of courses to support a program specialization, concentration, major or degree authorization?

. . .

g. By systematically comparing programs with System data, the "natural" non-comparability of programs can be demonstrated effectively?

. . .

i. Permits institutions' trustees to oversee the management of the curriculum without involving them unnecessarily in academic matters?

None of the liaison officers knew of any studies structured with SCNS data (d.), but two persons thought there might have been such. There was strong opposition to having trustees "meddle" with the curriculum (i.). The ability of SCNS data to reveal the "natural" non-comparability of programs was hardly understood by any of the respondents (g.); this characteristic is indicated when two or more programs are not found to have any, or only just a few, comparable courses. This means the program has mostly unique or one-of-a-kind courses. Nursing is an example; English was such an example before conversion.

A number of examples were given by respondents in support of most perceived benefits; similarly, when a stated benefit was disagreed with, specific contrary examples were often suggested. One university liaison officer said he could not think of any benefits from the System; one other university liaison person said she didn't understand any of the benefit statements. Given the historical record, the other three universities not heard from probably also found few benefits flowing from SCNS. However, as indicated above, if the products could possibly be of value at three levels in the university and all of the prime users were unconnected with the institutional liaison officer it probably is not fair to write or speak as if the liaison officer represented these other users in his/her institution. Several examples of this situation can be ascertained from Chapter V and its examples of reported utilization.

Goal Indications

The faculty survey included a question (#14) with six parts requiring "Yes" or "No" answers; each part related in whole or part to some aspect of the long range goals of SCNS. It began: "Have you had any indication that the system of common course numbers: . . .", followed by six choices. Note that this is not just an ordinary opinion or attitude question. It was written with some emphasis on whether the respondent had an "indication" about it; such could be an opinion heard by the respondent, of course. Or, it could have been interpreted as "hard data" or evidence, etc. The responses are shown in Table 3. A straight forward interpretation of these results would be that faculty perceive little evidence or indication of benefits flowing from SCNS. Their dislike of it and little knowledge about it combine to produce this pattern of response. There are some important differences between the "Yes" percentages. Item "b" is covered by a section of the Articulation

Table 3

Faculty Perceptions of SCNS Benefits

(From Question #14, Faculty Survey.)	Percent		
	Yes	No	No Response
a. reduced the number of courses/hours that transfer students have had to repeat?	17.1	77.7	5.2
b. facilitated the admission of transfer students into a departmental major?	28.0	66.3	5.7
c. helped transfer student to graduate after four years (or less) of postsecondary education?	14.0	76.2	9.8
d. led to more transfer students being prepared like the freshman-sophomore students at the 4-year universities?	13.5	77.7	8.8
e. enhanced articulation between community colleges and universities?	30.6	62.2	7.2
f. facilitated communication with discipline colleagues at other colleges and universities?	30.6	64.8	4.7

Agreement, but is a smaller "yes" percentage than "e" which specifically mentions articulation. Responses to items "c" and "d" probably rely upon personal observations; item "a" responses probably do not. Perhaps the reader may wish to try out his/her personal interpretations of these responses.

These data suggest--shout, if you would--that the information which documents the benefits of SCNS needs to be widely publicized among the faculty. It could become an objective at SCNS to raise these percentages by distributing widely the results of reliable and objective analyses which show accomplishment of some of these goal-like benefit statements. The information in Chapter V should be a starter. And, when data are being reported to the faculty, the contrary evidence, which must also be respectable and objective, needs to be given equal attention. To date no objective data of a contrary nature have been uncovered; gut reactions "yes," facts "no."

Another question (#16) on the faculty survey related to the transfer student: "Which, in your opinion, is most likely to help a community college transfer student obtain a bachelor's degree in the equivalent of four academic years?" Seven items were listed and the respondent asked: "Please rank order, e.g., 7 = most helpful." Thus, each item could have been ranked from one to seven by the 193 different respondents. To focus on the results, the percentages of first and second places were collapsed into a "low helpfulness" class; ranks three-five became "average" and ranks six and seven became "high." These percentages and those for the "No Responses," which were relatively large (20-30%), are presented in Table 4.

The most obvious feature of the table is that faculty believe strongly in the efficacy of academic advisement. Unfortunately, students have been complaining more and more to the members of the Board of Regents and to Legislators about the advising they have and have not been receiving. It seems possible that the chairpersons and others answering this question were most familiar with academic advising and the good which can come from it. It would be fascinating to administer this style question to 200 transfer students and compare the results with the above.

Table 4

Faculty Opinion About What Is Most Helpful
For the Transfer Student

Choices	% No Response	Percentage Helpfulness Low	 Average	 High
a. Catalogs	21.8%	8.3%	43.0%	26.9%
b. Recruiting literature	24.9	24.8	45.1	5.1
c. Counseling literature	22.3	13.5	40.4	23.9
d. Academic advisement	20.2	8.3	9.8	61.7
e. Common course numbers	25.9	35.8	26.9	11.4
f. Common transcripts	29.0	34.2	27.4	9.3
g. Faculty discipline conferences	24.9	20.7	37.4	17.1

Course numbering is not perceived by faculty answering the question (#16.e) as being very helpful to the transfer student; at best only 38.3% saw SCNS as average or better. This opinion may be based in large part on a lack of information; it could be based on a hypercritical attitude toward SCNS, for such does exist, as the section below on complaints and misunderstandings indicates. However, the large group of non-responses to this question would seem to point clearly to the fairly enormous void of information about this subject. It is hard to imagine information of greater importance because the upper division of every four year university has 51 percent or more of its students transferring in from somewhere else, mostly from the community colleges. The students in the three upper division universities are virtually all from somewhere else.

D. State Staff Reactions to the Long Range Goals of SCNS

The goals compiled for this evaluation study (see Chapter IV) were submitted to 14 State education staff persons from the House and Senate Committees, Department of Education and Governor's Office. They were asked to respond to the long-range goals listed for SCNS and then were probed for their reactions to the System. The goal statements appear in Chapter IV, section A, pages 113-117. Other information about the interviews appears in Appendix F. The interviews were conducted by Ms. Pamela Allen, graduate research assistant; she also wrote a very complete summary report of the interviews which, slightly edited, appears below. Many of the responses below can be interpreted in a larger context after the concepts in Chapter III are re-examined.

In reference to the first goal statement, development of an integrated information system, only one-fifth of the 14 staff persons interviewed agreed that SCNS had already achieved its part of this goal. Another fifth believed that it had been partially fulfilled. Two-sevenths thought this study might help clarify whether achievement was underway, but they apparently had no evidence that it was occurring presently.

Individual reactions to this first goal varied. For example, one person questioned whether SCNS could materially contribute toward fulfillment of the goal. Another person commented that he did not believe an integrated system existed, nor that the Commissioner of Education had a plan to develop one. One person stated the goal was not totally achievable because the mechanistic MIS approach often used would be seen as an infringement of academic freedom. Another person disagreed with the goal by asserting that management should be directed from the program level.

Reactions to the second goal statement, a uniform first digit for all common courses, varied somewhat. Approximately one-half of those interviewed did agree with the goal statement. Another one-seventh believed it to be important to the entire transfer process, but felt it would be difficult to develop a consensus about the level of each course. One person stated that he did not know why SCNS should do this when the community colleges were not funded using course data. Another person stated that they did not see this occurring presently, while someone else commented that the SCNS was not responsible for this goal. (The last two observations are correct, but as recounted in Chapter IV, this was an early goal which SCNS had to abandon in large part.) One staff person stated that the goal only should be to decide which undergraduate courses were lower level or upper division.

A high degree of consensus was revealed about the third, fourth and fifth goal statements. For the third goal, one-half of the persons interviewed believed that SCNS should be responsible for identification of curriculum gaps and institutions with specialized subject areas, but they also thought that SCNS should remain policy neutral in reaction to this information. They interpreted the words "improve" and "estimate" to mean or imply that control would be internal instead of external. Two-sevenths of those interviewed found the goal statement to be reasonable. One person commented that they doubted if accurate identification was possible, though he did believe it was possible to estimate the extent of course proliferation. Another staff person indicated the identification of curriculum gaps applied more to community colleges, but did feel that information concerning course proliferation for all institutions would be useful for discussion.

Over half the staff members interviewed said that it appeared communications were increasing between the community colleges and universities, the point of goal four. One-fifth said it was occurring slowly.

Agreement with the fifth goal was extensive. Twelve of the 14 persons interviewed agreed that SCNS was facilitating the transfer of students. One staff person commented that no matter what the official State Rule says, the universities will use their own discretion in deciding whether transfer and native students have received the "same" courses. Another person said there was no indication that the volume of course credits repeated was being reduced; that observation is correct because no time-one data are available.

One-fourth of those interviewed doubted whether the sixth goal statement was really a goal (see Chapter IV about this matter). Another one-fourth agreed with the goal but stated they had seen no evidence either way about it working to prohibit standardization. A little less than one half agreed, in full, that it appeared this goal was being achieved. One person stated that standardization was a definite fear at the institutions, and that SCNS should do something to reduce the fear, if it was not well founded.

Thirteen of the staff persons interviewed agreed with the seventh goal statement, i.e., that faculty were to maintain the SCNS. One person said that this could possibly occur within institutions, but never between them. (Apparently this interviewee had had no reports about the successful work of the many discipline task forces or of the discipline conferences, but was aware of the ferocity with which institutional officials will attempt to protect their own interests.)

Only five of the 14 persons interviewed saw the eighth goal statement (the encouragement of use of SCNS products) and its four subsections as being reasonable. Two persons felt SCNS had tried to stimulate usage, but it was not supported by the BOR due to the Board's other priorities. The other comments were quite dissimilar. One person stated that SCNS was not totally responsible for achieving this goal, but that the System was a desirable component among many other elements. This same person expressed the feeling that SCNS was not getting its fair share of support to help achieve the subgoals of number eight. One person said he didn't know if this goal had been internalized by the people who could accomplish it, i.e., the institutional administrators. Another staff person felt goal eight implied the desirability of "bureaucratic tampering" with what should have been recognized as institutional matters.

All those interviewed did not respond to all of the subgoals under goal number eight; however, the comments which were made about each subgoal will be reported. The first subgoal, reduction of course proliferation, led one person to comment that SCNS was having an effect, but not the desired effect. Another person thought that to make the goal achievable, SCNS had to provide the information to the persons who needed it. Two staff persons commented that if SCNS (and its products) was viewed as a management tool, this subgoal was appropriate.

In reference to subgoal (b), resolving jurisdictional disputes, one person agreed with it, four stated the "territorial" issue was bigger than any single institution and would, therefore, have to be resolved by a higher group/ authority.

Two persons commented about (c), more effective use of human resources. One agreed with the statement and felt it was being facilitated. The other person wanted the subgoal reworded so that it would state that SCNS should be responsible for "freeing up" resources for administrators.

Two persons saw SCNS as a vehicle for protecting programs against unwarranted comparisons, subgoal (d). One person saw this goal achieved and SCNS data now being used as a defense, desirable or otherwise. Another person commented that the universities would use the data to their own advantage, regardless. Also, one person said the goal statement was ambiguous.

Two major feelings surfaced in response to the ninth goal and its three subgoals. The majority of those that addressed the goal indicated that SCNS could be a helpful component in improving the various subjects of the subgoals, but should not be held totally responsible for them. The majority of those interviewed did agree that pre-college level vocational training courses should be numbered by SCNS. Most, however, were concerned that any attempt to equate vocational with college courses so as to facilitate transfers would be difficult due to the probable incompatibility of their contents.

It should be evident that even this group, the State education staff persons, lacked current and complete information about SCNS. Furthermore, that even though they can offer a State perspective, they themselves have (in some cases) diametrically opposed views about the State's role and the institution's separateness from the interests of the State. The greatest consensus was about the role of faculty in maintaining the SCNS, goal seven; however, even here there was one person who said it was not possible. Agreement, in descending order, was next best for goals five, then four, three and two. Goals one, eight and nine had low consensus, in large part because SCNS was not seen as having full responsibility for their achievement. Goal six was the only goal rejected as such, probably because most persons think of goals as positive outcomes, not as statements, like this one, about the need to avoid undesirable ends, i.e., standardization.

E. Utilization

Liaison Officers

By now it should be no surprise to find that both institutional liaison officers and faculty have sizable, if not enormous, gaps in their knowledge about how SCNS type one and two outputs are being used. The liaison officers may be much more aware of type one utilization than are faculty who are deficient in knowledge of both kinds of outputs.

Again, it should be noted that use apparently connotes two meanings: (1) use of statewide course numbers procured through the faculty task forces and distributed to all institutions by SCNS; and, (2) use of the course inventory data and discipline taxonomies, as for structuring analyses of curricula internally, or for making interinstitutional comparisons.

All liaison respondents indicated that the statewide classified course numbers were now used in the catalogs and on student records. Most agreed that the classified courses and taxonomies were used in some form of academic planning or program review but they differed over use of the materials for curriculum analysis. Most liaison officers from community colleges indicated that faculty-administration curriculum committees used (definition one) SCNS materials. However, the universities split almost evenly on this. In both the colleges and universities most liaison officers weren't sure whether their departments used the SCNS materials for advising and counseling students or for advising transfer students; the university officers seemed most doubtful (and most unknowing) about the extent of departmental usage.

At the institutional level, SCNS products appeared to be supplemental to other sources normally used in admissions for evaluating transcripts and performing related activities. For example, some liaison officers suggested that SCNS materials did not appear to be as authoritative for the colleges as the counseling manuals from the universities. On the point of using SCNS materials for interinstitutional comparisons, to determine, for example, course duplication or discipline specialization, the pattern was mixed. The community college liaison officers agreed that they did use SCNS materials to determine duplicate courses; the universities split "Yes," "Maybe," and "No." On analysis of SCNS course data for determining discipline specializations, the college officers split uncertainly, but the university officers registered a clear "No," an unexpected finding. On the matter of whether a follow-up was done to determine if native and transfer students were treated alike, two college officers said "Yes," but no universities indicated any such analysis was done. A few university and college representatives indicated they used SCNS materials to try to determine if transfer students had to repeat courses. As noted in Chapter IV, only one, but a very significant follow-up study was found, at Santa Fe Community College.

I.L.O. Usage Reports

The survey of institutional liaison officers included

Table 5

Actual Named Users of the Products or Services of the Statewide Course Numbering System

9 Community Colleges and 5 Universities*

Functional Title	Frequency of Usage Often	Sometimes	Never
	**		
Registrar (&/or Admissions)	8/3	1/1	0/0
Admissions head	2/2	1/1	0/2
Articulation officer	1/3	1/1	1/1
Recruitment official	0/0	1/0	1/2
Transcript evaluator	8/5	1/0	0/1
Records clerk/secretary	3/1	1/0	1/2
Catalog editor	6/5	1/0	0/0
Orientation officer	4/1	0/0	0/1
Counselor - academic	6/3+	0/0	0/1
Counselor - career	3/0	3/1	0/3
Counselor - placement	1/0	3/1	0/2
Coordinator, follow-up	2/0	3/1	1/1
Budget officer	2/	3/1	1/3
Institutional researcher	2/1	5/3	0/0
Planning officer	0/0	1/1	1/3
Physical space analyst/planner	1/2	1/0	1/2
MIS coordinator	1/2	1/1	1/2
Reports coordinator	1/0	1/1	0/1
Assistant to Registrar/President/II	2/0	1/0	0/0
Chairperson, Curr. Comm.	4/4	0/0	1/0
Member, Curr. Comm.	9/10+	2/0	0/0
Secretary to Curr. Comm.	1/1	2/+	0/1
Curriculum Developer	1/0	1/0	0/0
Administrative secretary	0/0	0/+	1/1
Departmental secretary	0/0	2/0+	0/0
Internal auditor	1/0	1/0	0/0
Director of Occupational Education	1/0	1/0	0/0

* From the Liaison Officers Submitting Usable Attachment 2's to the Questions for Liaison Officers Probing Institutional Usages of, and Concerns About, the Statewide Course Numbering System, by John S. Waggaman, June 17, 1981.

** Numbers = community college/university users.

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an attachment which asked for the names of persons occupying positions (generic titles were printed) who used or worked with SCNS outputs; see Appendix D-2, attachment 2. Even the large university whose liaison officer said his institution made little or no use of SCNS materials (see Chapter IV, Non-use) found several officials in the student records and advising areas who were making use of some SCNS products. The data in Table 5 were compiled from the reports returned and illustrate the variety of positions held by persons who were reported to use SCNS materials.

Once again it must be cautioned that these data represent only a few of the 37 public community colleges and universities in Florida; however, they do represent the colleges originating and enrolling more than 70 percent of the transfer students. The survey was designed to obtain a wide variety of information about institutional reactions to SCNS, but was not intended as a purely "count 'em" survey. Nevertheless, the listing of the names of real persons who used the SCNS data lent itself to the data compilation shown in the table. The numbers vary as the liaison office was able to identify these persons on rather short notice and because of the quick turnaround response date requested.

The persons in the positions of registrar, transcript evaluator, catalog editor, and curriculum committee member were most likely to have made some use of SCNS materials.

The community colleges seem to have a greater variety of officials using the SCNS data than those in the universities. However, this interpretation is probably somewhat misleading because the large universities function like a three tier hierarchy; they have a central administration, a number of deans and schools or colleges, and a series of departments or divisions. If the middle level concentrates on curriculum analysis and admission to degree programs, as in most undergraduate professional schools, then another cadre of users remains unidentified and excluded from this survey of liaison officers. Incidentally, one university liaison officer scribbled across the attached users form that "I'm sorry but I am the dictator," implying that no other significant user of SCNS materials was identifiable at the university. This attitude contrasts dramatically with another university which completed the form in detail, indicating that even within the central institutional administrative staff there were a large number of SCNS data users. It should be recalled that another three universities refused to participate in any way with this survey, and that one of them turned out to have developed a unique counseling and advising system based on SCNS course data and taxonomies.

Faculty and Departmental Usage

The faculty survey asked a number of questions related to utilization. When the faculty were asked (#4) if anyone had notified them about the availability of SCNS products, 48.2% said "No"; 48.2% "Yes"; and only 3.6% did not respond. Thus, it seems likely that almost 50% of the faculty at minimum have no awareness of the many products of SCNS. (To another question [#5], 36.2% said they wanted more information about SCNS and its products.) Conceivably current faculty who were around in 1975-1977 would be more aware, than newer faculty, but this older cohort contains those who are unalterably opposed to SCNS, many of whom are very poorly informed about SCNS. A question (#2) asked: "Has your department's faculty or staff used computer printouts, microfiche or other products of the SCNS?" The faculty said "Yes" 79.8%, "No" 18.1% with only 2.1% not answering. This large "Yes" response can be interpreted in the answers to the following question (#3): "Have you or your colleagues or support staff used SCNS products to: . . ." Six items were listed, the largest response, 72.0%, was registered for "Find a number for a new or revised course." The second largest response, 48.7%, was for "find out the courses offered by other department/institutions in your discipline?" The first was a typical type one output use, the second a type two application. The other choices were: 21.0% counsel students; 23.3% analyze the curriculum in your discipline; 24.9% check the courses in a related discipline; 3.6% other; and, 19.2% didn't respond. Because 34.2% of the faculty respondents were members of course numbering task forces, it is apparent that not all of its members use SCNS materials to counsel students, etc. In the conversion (#6) of courses, 80+% of the faculty said they were involved personally or worked on it for their department. However, only 52.3% checked that they had used SCNS products or services (#9). What they did use, they checked, were: the course inventory report, 40.9%; 31.1% a discipline taxonomy; and 20.2% consulted a course numbering person. These rates of usage reinforce the view that lack of knowing about SCNS products or their unavailability at the institution may be operating here. Perhaps one should be surprised that so many persons reported using some SCNS outputs.

Misperceptions

In 1977-78 several postsecondary officials expressed horror and dismay when they learned that the SCNS had pointed out some of the financial implications of duplicate courses in a paper which analyzed the concepts and problems of duplicate and dual-level courses. They charged this subject was "off limits" and not germane to the functions of SCNS. These misperceptions arose from the ignorance of the complainers who were latecomers to Tallahassee and had obviously made no effort to learn about the historic forces which supported creation and continuance of the SCNS. The facts to correct this misperception relate to the original plans of a select committee of State professional education staff persons from the executive and legislative branches who were then trying to develop a new funding formula (some are still working on the same problem at this writing!). Here is the record of these early planned uses of the uniformly numbered courses in the funding of postsecondary education.

The first draft of a consensus document was prepared in early 1973 by then SUS Vice Chancellor Ken Boutwell; it contained a plan for studies leading to a program of comparable costing and funding for all postsecondary activities and institutions. A revision was circulated October 29, 1973. This plan was to be discussed and acted upon by representatives from the Division of Community Colleges, Department of Education, Department of Administration and Legislative Committee staff. The development of comparable costing and funding principles and techniques, was, according to Boutwell's plan, to rely on six activities and their products; the first of these was the Common Course Numbering System.

This proposal was revised in March 1974 and agreed to in principle by the formal study group. In April 1974 then Chancellor Robert Mautz endorsed the plan in a letter to the Lilly Foundation from whom funding was being sought; it was to be a study of "A New Funding Methodology for Institutions of Higher Education in an Era of Declining Enrollments." Course Numbering was still the first element in the study: "Uniform numbers will provide a common base for developing program oriented funding and will simplify the process of achieving comparability in all of the following activities." This very same problem had been addressed earlier by then Vice Chancellor Allan Tucker in May 1969 at a meeting of the Council of Academic Vice Presidents; he stated that, for the purposes of preparing budgets and generating funds under current legislative formulae, it was desirable that the universities develop a standard system of numbering to indicate course levels. The Council of Academic Vice Presidents terminated their consideration of the Tucker plan in September 1971 when it unanimously endorsed Common Course Numbering. Officials and committees from the Division of Community Colleges have consistently indicated over the years that they thought course numbering had some financial implications. Similarly, the statements of benefits and purposes of SCNS, which have existed for many years, have always included facilitation of financial analysis. Senate and House members and staff who have supported SCNS have endorsed this purpose, although the idea of using uniformly numbered courses seems to have faded into history.

The issue of duplication of courses and programs has always had an efficiency or cost side to it and has been specifically addressed by some current and former education officials and legislators. On January 30, 1975, (then)

Senator Robert Graham addressed the SCNS Maintenance Task Force which was meeting for the first time, at the University of Miami. Graham said he saw three immediate uses for SCNS course data, of which the third was financial analysis, "to help develop new ways of funding colleges and universities." The officials who were complaining about a financial connection for SCNS arrived in Tallahassee later that year. Apparently the BOR organizational memory function failed when the new officials took too seriously the extreme charges and numerous complaints of faculty during their orientation sessions. Unfortunately, they did not or would not seek clarification about these matters from the director of SCNS, his staff or the Policy Council.

F. Complaints and Problems

Liaison Officers

The complaints reported by liaison officers were of two kinds: those from instructional staff who were reacting to the impact of course numbering on their activities; and, the problems, frustrations and difficulties experienced by some liaison officers. The typical complaints of faculty, said to be voiced much less frequently in the last few years, concerned the confusion resulting from the four digit course number and the large volume of alpha (subject) prefixes. Faculty do complain about any delays in obtaining an acceptable course number for new courses, the officers said, blaming the delays (incorrectly) on the SCNS "bureaucracy" instead of on their institutions' own procedures or the time required by SCNS staff and the task force review process. The liaison officers were forthright in describing these problems to the principal investigator.

Because many of the liaison officers are registrars or connected in some fashion with their operations, a sizable proportion of the complaints relate to their functions. Here is an inventory of their concerns; the more frequent ones are listed first, of which only 1 through 4 are common concerns; the others being unique to a particular person.

Chart 3

Complaints and Concerns About SCNS
By Liaison Officers

1. Courses essentially alike at two institutions have not been equated.
2. A university's unique courses may be grouped (classified) inappropriately.
3. It is not uncommon to find unlike courses being equated.
4. There must be some common courses in both the community colleges and the lower division of the four-year universities if transfer students are to be as academically prepared as native students.
5. Equate courses only by content, not by, for example, whether they serve AA or AS degree programs, or how they are funded.
6. Should avoid equating credit and non-credit courses, especially if the latter enroll non-college students.
7. Need a history for each course to show its sameness even though its SCNS prefix and number may have changed several times.

Chart 3 (cont'd)

8. Should be able to reserve a course number while a new course proposal is winding its way through an institution prior to delivery to SCNS.

9. A college may unfairly lose its course because a university reclassified it as upper division level.

10. There is no accepted way to determine the precise difference between a 200 [sic] or 300 level course.

11. Faculty serving on task forces may make decisions reflecting their own personal feelings and preferences, thereby ignoring the taxonomies and existing classification of courses.

12. Need to know when task forces are to meet so course changes at institutions can be made prior to the meeting(s).

13. Task forces should meet (only) once a year.

14. There are too many prefixes, as for physical education and music.

15. One-third of course prefixes and numbers recommended by college faculty are not accepted and changed at SCNS [sic].

16. Submit (to the institutions) reassignment of course numbers from taxonomic changes only once or twice a year.

17. Notify institutions before sending out taxonomic changes.

18. Relate taxonomic changes to the schedules for preparing catalogs.

19. Wrong numbers should not be allowed to be assigned to courses by SCNS or task forces.

20. Double check renumbered courses (as in taxonomic or prefix changes) because they can require a single entry on a student record to be changed for as many as 500 students at a time. And, the change could cause a loss of federal funding.

Chart 3 (cont'd)

21. Each college should have the freedom to offer whatever courses it deems appropriate.

22. If a college may determine its own general education program (under the Articulation Agreement), then there should be no concern at SCNS about the great variety in such programs at the 28 colleges and (now) six universities with lower divisions.

23. Don't use terms like "proliferation" (of courses) because they are loaded with undesirable connotations.

24. Identifying local course sequences (for prerequisite chains) does not seem possible now.

This list contains many items for which there already exists at SCNS a set of policies or procedures that could be used to "solve" some of the problems. It is not clear whether the liaison officers do not know about the policies, whether they feel stymied as a result of an earlier attempt to resolve them, or whether they do not wish to spend the time necessary to work through the problem to a solution with SCNS staff, et al. The question whether there is sufficient commitment among many of these very busy persons to try to make SCNS work throughout their institution and the State by attempting to resolve the above concerns remains an open matter. A few liaison officers indicated their college or university found no reason to do more than use the required statewide common course numbers. This list could be an agenda of items for the next meeting of liaison officers.

Faculty Views

The faculty survey contained a structured set of stereotypical (i.e., often repeated complaints but not necessarily true) items which asked for an agree or disagree response (#15). At the end of the survey was an open ended question (#18) which solicited opinions and elicited positive and negative reactions or other remarks. The responses are arrayed in Table 6 according to the magnitude with which the faculty agreed to the items in the list of stereotypical complaints. An examination of Table 6 indicates that items 1 and 2 were the predominant choices. Item 2 received the largest overall reactions because only 7.3% of the faculty failed to respond to the item; item 1 had 8.3% who didn't respond. The real difference between the two items was the percent who didn't agree; item 2 with 24.4% was 6.3 percentage points greater than the disagreement rate of item 1.

Item 3 was another one for which a bare majority of the faculty agreed; however, because 13% failed to respond to this item, the size of the difference between agree and disagree is substantial. The same kind of difference exists for items 4-6, although none of them has a majority of faculty agreeing with any of the items. Item 7 has the largest non-response rate: 16.6%; the "disagree" percentage is 47.2. Items 8-10 have two-thirds or more "disagree" ratings; item 10 has the smallest non-response rate of these

Table 6

Faculty Response to Stereotypical Complaints About SCNS

		% Agree
1.	The system has caused an increase in paperwork.	73.6
2.	Courses have been equated which are often not really comparable.	68.4[a]
3.	Two courses cannot be comparable if one has a prerequisite and the other does not.	50.3
4.	The system has created formalistic course titles which do not really represent the content of any real courses.	47.5[b]
5.	The faculty task forces may have created too many subject matter (alpha) prefixes for most disciplines.	47.2[b]
6.	The system has led to delays in the approval of new courses.	44.0[b]
7.	A wrong number or prefix is often assigned to a course.	36.3[c]
8.	It has caused the departments to lose their academic identity.	24.9
9.	It has let to a proliferation of courses.	22.3
10.	There is no reason why any two courses should be comparable.	22.3[d]

a=has smallest percentage "no response," 7.3.

b=Percent "agree" larger than "disagree" because of no responses. Items 7-10 have smaller "agree" than "disagree" items.

c=Has the largest "no response" percentage: 16.6.

d=Has the largest "disagree" percentage, 67.9; item 9 has 63.2% "disagree."

three items at 9.8%.

These responses certainly should be seen as sincere reactions but they also confirm that many faculty are imperfectly informed about SCNS. This is not an indictment of the faculty, but does reflect on the leadership of the institutions and the lack of a public communications program at SCNS. For example, a university at which the leadership is personally hostile to SCNS but promises to remain neutral in its use of SCNS ouputs at the institution almost guarantees that no attempt will be made to partially or fully utilize the type two products of SCNS. The one exception to this generalization arises when professional staff persons are hired, as in the last two or three years, who have not been tainted with the earlier invectives against SCNS; they may have a need to utilize all of the tools (i.e., SCNS outputs) to fully and effectively perform their professional activities. Such persons were identified in a few community colleges and universities. Institutions where the leadership openly gives some support to SCNS have also been identified. As always, if the institutional leadership gives SCNS a low priority by hiring a person to perform the liaison function as if it were only a clerk's work, and this person plays the "game" well, such a person seems to effectively prevent the faculty and lower level administrators from learning about the benefits of SCNS type two products. If department chairpersons throughout an instiution understood SCNS, then the responses to items 1-10 should have been quite different. Furthermore, if they all understood how their own institutions made decisions about student admissions, curriculum change, the patterns of enrollments in courses (e.g., 25-50% of courses are taken out of sequence) and such, the nature of the fallacies in the stereotypical complaints of items 1-10 should become evident. When faculty are not provided leadership in complex matters, it should not be surprising to find persons who scapegoat and complain about SCNS or to see others throw up their hands in utter frustration.

For example, item 10 is the final word on the impossibility of any courses ever being comparable; this is a statement by an academic leader who still believes it and takes it very seriously. It, unfortunately, may be the principal reason why the concepts of liberal education or general education are in nation-wide disarray; i.e., because so many want a unique curriculum. It also enshrines the practices of an institution in a most provincial wardrobe of local autonomy and self-righteousness. Apparently the faculty responding to this survey understood some of these nuances.

Item 9 is disagreed with by the faculty. However, this researcher's review of many disciplines in the SCNS course inventories seems to indicate that proliferation may have occurred in some disciplines. For example, the discipline of English developed initially a taxonomy and then classified courses within it in a very singular manner; the task force chairman wrote the director of SCNS that courses had to be 90% similar before any two would be equated. He explained that this was done to thwart the possibility of the State requiring standardized syllabi, texts or tests. After five years of experience, the task force chairman and the members of the English task force decided, and completed, a more holistic system for classifying courses, which they hoped would help faculty counsel and advise students.

In a few instances departments have attempted to give substantially different names to their courses to make them unlike those at other institutions in the area or region. The motivation often has been to prevent charges of duplication of programs or as a reaction to some threatened demand for consolidation, e.g., by federal civil rights agencies. These cases come to light in the analysis of discipline course inventories and the changes made to them over a period of several years. Perhaps the SCNS Policy Council, composed of faculty, should review these matters with the discipline task force faculty and the institutional representatives. In any event, faculty at large are unlikely to have any detailed information about course proliferation. They could, of course, if SCNS reported its findings about such matters in some regular publication which would reach all departments in the SUS and all community colleges.

Item 8, loss of departmental identity, was at one time the most frequent charge/complaint made by faculty against SCNS; the use of subject matter prefixes instead of someone's departmental abbreviations was and still is somewhat confusing. Some thought that a loss of academic identity from use of subject prefixes would be automatically followed by a loss of FTE enrollment data, and then a cut in funding. None of these cataclysmic (and they certainly would have been) disasters occurred as a result of the implementation of SCNS. But note carefully that almost 25% of the faculty respondents apparently believe that SCNS has caused their departments to lose their academic identity. Perhaps the SCNS Policy Council should review this matter.

Items 2 and 7 have something in common: they both are about factual matters; they both can be brought before the appropriate discipline task force under existing SCNS procedures. If the evidence is substantial and persuasive, they can ask that new course prefixes or numbers be assigned. This "appeals" process has been in existence since 1975, but few, if any, faculty have used it. See Appendix B-3.

Items 5 and 6 are apparently true in some instances and for some disciplines. English was such a case. Community colleges have apparently experienced some delays, usually a semester or less; the universities have always had a multilayered chain of curriculum committees, which could be very time consuming. The liaison officers indicated most delays were due to the incomplete documentation sent SCNS which did not support the changes or additions wanted. Because SCNS asks for no more than the Southern Association of Colleges and Schools recommends, it seems strange indeed that faculty and administrators would not monitor the quality of their curriculum proposals more carefully. This situation is relevant, probably, to the widespread faculty agreement on item 1; it must be, for SCNS requires only one sheet of paper for any course changes or additions, and a syllabi for new courses.

Item 4 is a literally correct statement, but it was the faculty members and chairman of the discipline task forces, not the SCNS staff, who created the discipline classification systems. At the unit or generic level a single title for an SCNS course is determined; however, all the institutions having a common course use their own individual course title. Some institutions end up with the same course title as the generic title, or, more likely, vice versa. It is important to note that in the early development stages of SCNS, many faculty task force members complained bitterly, some do yet, about the fact that they had to use course titles and/or course descriptions which were often so general or so esoteric as to be unintelligible. Many students complain today about the fact that local course titles do not really describe the content of the courses they choose. Perhaps the faculty task force members are no better at developing generic course titles than their peers within their institutions. Incidentally, when task forces ask for more information to clarify the basis for an accurate course classification decision it seems that this action could be labeled a cause of undesirable paperwork, and an undue delay; however, if the task force does its work well, then many other small delays to students may be avoided later on.

It is probably the perceived intervention of the State, *a la* SCNS, which rankles the faculty the most, and underlies their selection of "agree" for the top 5 to 7 items. Incidentally, it should be understood that before the efforts of faculty task forces, the admissions clerks, secretaries and officers had to make guesses about the many ambiguous course titles appearing on the transcripts of transfer students.

Item 3 is a particularly difficult one because it has its roots in educational philosophy and the faculty's authority to implement their version of it. Item 3 indicates the persistance of a misconception about courses and learning. If a course is a teaching and learning unit, then a student should know more upon exiting then when entering. If no student is able to exit then possibly none were able to learn anything because they were unprepared by virtue of not having the proper knowledge or skills prior to enrolling. However, it is also possible that poor teaching, poor advising, poor placement at admissions, and other "normal" difficulties could lead to the same results.

Especially troubling to serious curriculum analysts is the rationale which supports prerequisites; when they are based on evidence of some kind that greater learning might occur, they make good sense. But when they are based on an untested non-empirical belief it appears some purpose other than enhanced learning is being attempted. For example, there is the extended sequence of courses which may be accompanied by requirement that several courses taken earlier must be repeated if one is missing from the sequence. That has sometimes turned out to be an attempt to insure the generation of a specific number of FTE credit hours. They make it possible for faculty positions to be retained in the face of declining enrollments. And then there is the opposite case: enrollment demand may be greater than that for which the college or university leaders want to hire sufficient faculty. A means of damping down demand is the placement of a series of course prerequisites which will clearly discourage students. An example might be a requirement that all undergraduate would-be business majors must complete a calculus sequence with a C grade before admission as a business major. In cases like the latter the curriculum analyst would like to see the evidence which indicates that the calculus requirement in fact enhances learning and will make one a more successful business person. Perhaps consumer-oriented students would also want to see the evidence. There should be little doubt that the concept of prerequisite is acquiring a bad (worse?) reputation.

The questions about it began in the late 1960's when students started asking for relevance and males wanted ways to make decent grades to stay out of the Vietnam draft. Nearly the entire undergraduate curriculum became unstructured by 1969; many changes within the disciplines, and the testing industry (development of CLEP) reinforced the student demands. These led to many traditional course sequences being exploded to a cafeteria list of electives which could be taken whenever a department offered them. Under open admissions policies it became a positive and good thing to let students take whatever interested them so they would discover a need for more English and math and other fundamentals. Only fields like Music, Dance and the other fine and performing arts have been able to demonstrate the necessity for a fairly rigid set of time based course sequences. Physics and Chemistry decided to equate year-long sequences rather than single introductory courses, based on a recognition that different science departments sequence their material in different orders, but it all gets covered by the end of the sequence.

Thus, the concept of prerequisite, although of ancient and honorable lineage, has now become somewhat questionable at almost every stage of learning, except where the evidence is very clear. Again, if a faculty member wishes to request reclassification of a course on the grounds that its content is significantly different when certain prerequisites are required then that matter can be raised with the faculty task force. These "appeal" procedures have been around for almost six years; they have been frequently discussed at discipline conferences and other meetings. They deserve wide publicity.

It is not the purpose of this study to defend any operating concepts of SCNS nor to justify the existence of the procedures for making the system work. It seems beyond a shadow of doubt that some systematic periodical form of communication is needed to inform institutional faculty and administrators, state officials and even students about the procedures, rationales, policies and plans of SCNS.

Volunteered Comments

A number of comments were volunteered by faculty at the end of the survey form. These were classified by the principal investigator into seven classes. Forty percent or more of the faculty made some kind of comment; 17.1% (33) gave 55 information items; 10.9% (21) made 25 patently incorrect or "illegal" statements, indicating no understanding of the statutory law or rule governing SCNS. Another 6.7% (13) made 17 statements which were about affairs almost exclusively within the control of their own university, which seemed to indicate that all of the universities had significant internal communications problems. Seven point three percent (7.3%) of the faculty (14) made 14 positive recommendations; 5.7% (11) made 12 negative recommendations. Thirteen percent (25) made 33 positive comments; while 39.4% (86) made 173 negative comments. Almost all of the negative comments (except the broadsides like, "shut it down, it's too expensive") have been discussed one time or another by the SCNS staff, various faculty task forces or the Policy Council. Most of these comments represent perceived problems which, if corrected, would enhance the System; therefore, they should be taken seriously. Perhaps the SCNS staff (and Policy Council) can place these matters on an agenda of ongoing concerns. Some are clearly communications problems, others require some action, while still others may be unsolvable, but they all deserve careful consideration.

Among the problems is a major issue: the subject prefix and four digit number has no uniform code category for the sequencing of courses. This problem has several dimensions, according to the comments from liaison officers and faculty. First, because different faculty structure course sequences differently, there often results larger numbered courses preceding smaller numbered courses. This happens because the course number identifies a body of subject matter; the numbers are not necessarily arranged in any level of difficulty, except as by the first digit and it is only an approximation at best. Second is the problem of sequencing different courses which do not have the same alpha prefix. There apparently is a "neatness syndrome" which drives both faculty and students to expect, for example, EDA courses to always precede EDF courses, or that INR precede POL, and so on. The explanation for the first problem applies here also. What might be considered, should enough faculty, et al.; be concerned is a proposal for suffixing the classified course number with an alpha letter or a symbol for the name of the sequence. This sounds like more elaborate coding; however, the point to note is that the solution can be devised by the institution.

Other Negative Comments

The following page is a memo sent to the principal investigator; it has the "ring of truth" about it. What is so sad about the memo is the sense of frustration and hopelessness it conveys. Even more sad is the fact that some institutions have overcome these problems, as witness the use by University of Florida and Miami-Dade Community College of SCNS materials in their counseling and advising programs (see Chapter V). Unfortunately this university has had no leadership or professional staff who believe any usefulness or benefits can come from SCNS. Some community colleges

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Chart 4

"The Head Counselor's Lament"*

Some random thoughts about the SCNS. (I am coordinator of Undergraduate Studies for the College of Business, ... My office manages 5500 records and students. This office admits, registers, advises and certifies all of these students. We handle approximately 2000 new transfer students each year. Each transcript must be evaluated for course equivalencies).

1. 25% of our students are from out of state, 25% are local home grown, start as freshmen, so the SCNS has application to 50% of the students.

2. When the system started 4 years ago, a fourth digit was added to each course number. This immediately stopped all course number communication between student and advisor. Communications now are by course titles.

3. The system proliferated course prefixes and became to complex to become useful as a system to guide students in program preparation.

4. The common number did not have common credit values. A single course number could vary from 3 to 5 hours credit throughout the various institutions. Obviously they were not the same course.

5. It resulted in uncommonness. Instructors, departments and facilities looked for local identity, by finding numbers no one else used.

6. It worked in reverse, example --prior to SCNS students who had Principles of Managment at the junior colleges were credited with this course at .... After SCNS the junior college Principles of Managment was MAN 1000 and ours was MAN 3010, so "obviously it was a different course".

7. Principles of Marketing turned out to have a common number at junior colleges and U... At the junior colleges this course was often taken by pre-business students in the first semester. It had no prerequisites. Here and elswhere in the S.U.S. the course has prerequisites and is a junior level course.

8. "Elementary Statistics" courses varied from 3 to 5 hours in credit and is offered by many departments. There is no common number or value. Yet by course content they are all similar enough to be considered equivalent.

I could go on. My final assesmment based upon 5 years of daily experience with the systme are: It failed as a systme to enhance communications between students and advisors, regarding the student's program. (What other value could it possibly have had?) It was initially a very expensive change and is still man hours costly in application. However, another change would be equally as expensive. It's here, the computers are programmed to use it. Leave it alone --the numbers are not that significant. We've found other ways to communicate.

---

*Title assigned by the principal investigator.

have evidenced the same attitude. Here are paragraphs of criticism from several different respondents:

> For this particular discipline . . . which is totally graduate and never experiences transfers, the whole numbering system is just more inapplicable paperwork. I understand its intended function for undergraduate curricula. . .
>
> The common course numbering system has been a hindrance. Approvals for new courses are late, which often means the course is omitted from the schedule given to the students, which means it does not receive enough enrollment to [continue] . . . Students with supposedly equivalent courses (same number) have been found to have different backgrounds (were taught different material) than own students.
>
> Eliminate SCNS.
>
> SCNS has been a waste of time. [It] causes delays. It makes course listings very difficult to understand. No one takes it very seriously and little benefit is derived.
>
> I have no real problems with CCN as it has developed so far, though I see the potential for some real problems in the future if the drift toward standardization continues. . . .Overall the potential future problems plus the marginal benefits would not seem to justify continuance in my opinion.
>
> Although I served on the task force in my discipline (Music), I was never convinced that it was a necessary process. [Our] catalog was vastly more efficient prior to the common course numbering system. As I also served as a departmental advisor [to students], I feel our "new" system is not necessarily an improvement.
>
> Re Common Course Numbering: A colossal waste of time and millions of dollars of Florida taxpayer's money. It has served this department as a constant irritating nuisance without any redeeming features. [Note: another member from this large department attended a discipline conference and thought the SCNS was helpful to faculty who had to advise undergraduates.]

> Common Course numbering makes sense only if all programs within the State University System are the same.
>
> There is no question in my mind that courses titled and numbered the same, but given at different state universities, may bear little resemblance to one another with regard to content, rigor, or competence of faculty. I am distressed as well by the loss of departmental identify engendered by the Common Course Numbering System and the apparent ignorance of some who assign the alpha prefixes! I think as it stands now, the System benefits weaker (academic) departments and weakens stronger departments in the sense of equating the course offerings of each through the illusion of equality through the employment of SCNS.
>
> It is most confusing when the numbers are identified and the only difference is the prefix.
> Example: PEL 1121 Golf
> PEM 1121 Yoga for Exercise
>
> Since I'm not a department chairman and only deal with doctoral students, I can't respond to most of the questions. In my role as assistant to the dean I find the alpha prefixes a problem. They do not, in many cases, indicate the department offering the course which requires a lot of checking before I can direct items to the correct department.

There should be no doubt that these are thoughtful and serious comments, even the one of two words. Many of the above comments reflect internal university problems (e.g. delays, poorly organized catalog); most represent a departmental viewpoint, not a statewide inter-institutional discipline viewpoint. It is true that graduate departments or programs find that one more form has to be filled out for each course transaction and that course comparability is not very meaningful, unless, of course, one university teaches a particular course at the upper division undergraduate level and another university lists the "same" course at the graduate level. The person making a blanket indictment of courses in weaker departments or institutions probably could do the academic community an important service by performing some systematic analysis (as during a BOR program review) to document the disparity which is said to exist.

Again it must be emphasized that where factual matters are at issue there are supposed to be processes in place at SCNS for resolving differences. But without genuine evidence being presented to demonstrate that serious problems exist with this State-mandated system it seems unlikely that useful changes can be made in the System. On their face, the quotations above indicate that SCNS has so few benefits that its disappearance would be welcomed.

Early Reactions

During the early years SCNS came under a steady barrage of criticism. Much of it was presented as forecasts of doom and disability. If one examines these statements closely, it soon becomes evident that their purpose was to act as "self-defeating prophecies." That is, if they were said often enough, then action would be taken to insure that the dreary forecast would not come true. Here are a few examples.

> From the defunct State University System Faculty Senate Council, which opposed SCNS for the following reasons (January 8, 1975):
>
> > [SCNS] is a violation of academic freedom and deprives the faculty of its fundamental

> rights and responsibilities to determine curriculum.
>
> [SCNS] represents increasing centralization and management control in higher education which is inconsistent with learning and creativity.
>
> [SCNS] will lead to additional expense for students.
>
> [SCNS] endangers quality of programs in higher education.

From the Division of Student Financial Aid, Alaska Commission on Postsecondary Education, June 23, 1976:

> . . .My concern is simply that the uniformity implied in a common course numbering system may, over the years, be responsible for further propagation of the principle known as "regression toward the mean" where variance is diminished to a much narrower spectrum than previously existed.

In reaction to the above it must be pointed out that some fields have found they have been able to defend their program diversity to their professional accrediting group and still be fully accredited. However, certain business education accrediting groups are trying to force all undergraduate postsecondary business management and marketing courses, which count toward a major, to be given only at the upper division level.

From the letter of a Florida private college president, June 7, 1976:

> First, for the most part the numbering of a course has little to do with the actual material that may be presented. [SCNS was not designed to correct this problem; perhaps student governments should fund an educational ombudsman who could help a mis-led student decide whether to sue whomever for misrepresentation?]

> Second, the fact that the course descriptions are generally the same is equally meaningless if one wishes to insure that all such history courses are similar. [SCNS was not created to insure such similarity, but to identify it through a group of faculty from the same discipline. Just because it's impossible has not stopped admissions counselors and faculty advisors from using catalog descriptions to make these judgements for 50-100 years. Perhaps SCNS is a better source of information.]
>
> Third, there are too many factors now serving to stifle the traditional diversity of American education. [Only faculty and academic administrators could use SCNS to stifle diversity.]
>
> Fourth, if you are concerned with the matter of consumer protection I strongly recommend that you lend your support to regional accrediting agencies. [Unfortunately, they do not guarantee any kind of minimum quality of education at the institutions they accredit. Worse yet they do not, repeat not, recognize articulation problems between community colleges and universities.]

The comments in brackets are representative of the kinds of responses which have been made to the substantial misunderstandings written as facts. After scouring the SCNS files for, and finding, numerous documents which complain about it, a strategy emerged for coping with the extensive misinformation and incorrect assumptions found in them. What might be done is to list the incorrect statements and follow them with the correct information. Here is a sample of what is possible using existing SCNS documents.

Chart 5

Incorrect Assumptions About Common Course Numbering (CCN) and the Statewide Course Numbering System (SCNS)

SCNS was designed to guarantee course comparability (wrong);

> It is an inventory of what is, not an academic policeman.

SCNS was designed to supplant all other methods used by admissions clerks, faculty and others who evaluate transcripts (wrong);

> It was designed to supplement existing methods and make public the decisions about course comparability before a student enrolls in a course.

SCNS was designed to replace catalog course descriptions (wrong);

> SCNS was designed to be a complete and up-to-date inventory of all courses. The SCNS course equivalency profiles contain the information necessary to distinguish one classified course from another.

SCNS was designed to reveal course content (wrong);

> Faculty task forces classified courses on the basis of the information they could obtain, e.g. course syllabi, catalog course descriptions, course descriptions prepared for curriculum committees, letters and other communications from faculty, or, at a minimum, course titles where no description was avilable in a catalog. Thus, CCN reveals whether courses are unique, i.e. listed at only one institution, or are common to two and up to 36 other community colleges or universities. Course content would be similar in common courses, but not in unique ones. Content would have to be inferred from the CCN course title, the location of the course in its discipline taxonomic structure (decade, century and prefix) and its distinctive characteristics as revealed in the course equivalency profiles. Intended course content is listed in the syllabus and is supposed to be filed in the office of the chief academic officer (dean of instruction, academic vice president) as required by the Southern Association of Colleges and Schools, the regional accrediting association. Actual course content is

Chart 5 (cont'd)

> available only in the textbooks actually read by students and in the lectures recorded (unedited) in the classroom. (Perhaps testing for learned knowledge would be more in the service of preserving academic freedom than assembling real course content?)

SCNS was designed to change the institutional processes which curricular changes were made (wrong);

> SCNS was not designed to alter any institutional procedures by which courses are reviewed and approved for, or denied, inclusion in the institution's curriculum. SCNS does require information about new courses or course changes, which is the typical information required to be maintained by an accredited college or university.
>
> SCNS was designed to develop an inventory of courses taught in all Florida public institutions. The data in the course inventory can be arrayed in tables showing which institutions offer the same courses. Academic administrators and curriculum committees can use these tables to determine whether other institutions in the area offer the same course, making it possible for them to decide to avoid unnecessary duplication, i.e., excessive institutional competition for a limited student population (market). The Florida Legislature has been very interested in seeing institutions undertake this action, which is why it has given such strong support to SCNS since 1974. In the best circumstances, one institution would initiate negotiations with a second one to share instructional resources when it appeared that duplication of program offerings would be an unnecessary public expense. Thus, SCNS was designed to provide data which when used would enhance the quality of curricular decisions and aid in the conservation of public resources.

SCNS was designed to simplify the course registration process (wrong);

> Members of the Florida Association of College Registrars and Admissions Officers have supported enthusiastically the SCNS from its inception in the late 1960's. They have never claimed that it would simplify registration and neither has the SCNS staff. Having to learn new course numbers in place of old ones does require an effort from students and faculty who were in Florida before 1977-78. When

Chart 5 (cont'd)

> the faculty task forces complete their reviews of the converted university semester courses, and the discipline taxonomies have been improved, then some stability in course designations may result, which could simplify the preparation of semester registration materials.

It would appear that a standard set of responses like the above could be written, compiled and distributed; or, one or two could be published and republished in some kind of monthly newsletter prepared by SCNS.

G. Prospects

This section brings together some remaining items from the surveys and identifies some current issues which are emerging.

Institutional Reactions

The reports by liaison officers about how their institutions' leaders responded to complaints about SCNS were remarkably varied. Many responded as if they were unaware of the kinds of difficulties which have been brought to the attention of the Commissioner of Education, other state education officials, professional accrediting groups and others. A few liaison officers reported how faculty and others tried to lay the blame for their difficulties in getting courses changed or correctly numbered on SCNS instead of their own institutional procedures and staff; the liaison officers explained that usually the faculty were wrong in these matters. Several liaison officers said they did make an effort to inform faculty who incorrectly asserted that SCNS had interfered with their institution's curriculum development process; these and other liaison officers emphasized that such meddling would not be tolerated; they could not give any examples of this happening. A few liaison officers indicated they attempted to help their faculty work out difficulties and thereby educate them about the SCNS, its strengths and weaknesses. Some liaison officers seemed to be unable to function in this capacity, either because they were hostile toward SCNS, or were a part of a leadership team which seemed hostile, or were not in the mainstream of activities at their institution, or didn't want to get stuck with the "tar baby." Perhaps a more well developed statement of functions for the liaison officer and incorporation of it in the official rules of the State Board of Education would help this situation.

Informing Students

The faculty were asked (#17): "Have the students in your department been informed about the course numbering system so they may use it (the alpha prefixes or taxonomies) in the selection of courses?" The faculty response was clear: 57% indicated students hadn't been informed, while 34.2% said they had. To the follow-up question:

"Should they be informed?" only 57.8% responded: 37.1% said "No" and 20.7% said "Yes." This recommendation by faculty should be interpreted in light of some of the personal comments reported above. It appears that faculty think so poorly of SCNS data that they do not want students fully informed about it and its potential use; this attitude may stem from a fear that students will use formal authority in a mechanical fashion without the clarifications and good judgment which faculty advisers can provide. If this interpretation is correct, then faculty should make a serious effort to insure that common courses have been equated correctly. The reason for this assertion appears in Chapter V where it was reported that Miami-Dade Community College is using a transfer counseling system based on SCNS data; as the largest supplier of transfer students to seven of the nine universities it will be sending many students fully informed about automatic transferability of courses. These students may be better informed than faculty, for they know only the current system.

Perhaps faculty who have some evidence that transfer students who have taken the "same" common course, but are not equally prepared as "native" students should present their facts to SCNS. Note again that students of different ability in the same course show different levels of learning; in other words student performance needs to be compared when ability is controlled. This fact indicates that learning variation within a course may be greater than between courses covering the same subject matter. Furthermore, it means that within-department differences can be as great as between-department differences for the same discipline. The real issue comes down to the results of an analysis which shows consistently that students from "X" institution, "Y" department and "Z" professors do poorly, average or better than average. Preservation of academic freedom might be insured by testing students to determine how much they know. To act like SCNS is itself at fault in these situations instead of looking at the problems and attempting to work out solutions which will lead to a quality education is to shift attention from the real problem to its symptoms. The surveys for this evaluation study indicated clearly that some serious questions about the validity of the SCNS data may be at the heart of a number of concerns and complaints of faculty. This study was not designed to probe the issue of poor preparation of students transferring from one institution to another, but that clearly seems to be the heart of the complaints about courses equated between community colleges and the four year universities. Isn't it time to produce some results from studies of matched (ability) samples?

Future Challenges

The problems attendant to numbering of vocational courses in the future probably deserves to be seen in the light of the existing mistrust by faculty of the SCNS data base at this time. Also, the staff changes at SCNS probably ought to be seen as reducing the response capability of SCNS to its everyday concerns. The need to reorganize task forces and have them examine the new array of university courses converted from the quarter calendar should undoubtedly be the primary task. This effort may take two to three years by itself, a substantial undertaking which may blossom when a number of taxonomic changes are felt necessary as the new courses from all university and community colleges are reviewed holistically.

H. Discussion of Findings

This chapter has reported the perceptions of institutional liaison officers, faculty, State education staff persons and others. Interpretive comments based on the existing policies and practices at SCNS were interspersed to provide context and background. Many concerns were identified and some recommendations listed as ways to cope with the perceived problems. A summary of the main concerns stated in this chapter are listed below, following roughly the sectional topics; they are augmented by the findings from the other chapters whenever a more complete summary statement could be presented.

1. Operational Aspects

a. The institutional liaison officers responding to the preliminary survey reported receiving excellent service from the staff at SCNS. They did seem to hint that the SCNS staff should do all that was possible to speed consideration by task force faculty of new course number requests. The faculty also wanted speedier responses, but needed to be better informed about the length of time required for course approval in their own institution and needed to be better informed about the documentation required for new course number requests.

b. It was found that one institution, and perhaps a few more, may be designing "permanent" course identifiers for their local institutions. In this age of the minicomputer, such a file could easily be created as a local inventory of all approved courses. Some large universities find it convenient to assign a five or six digit section number to each course and class so they can be identified in the registration process; that's not what is being referred to here. If, instead, faculty are still using old course numbers to advise and counsel students, such practice can only be considered a convenience to the faculty, a probable source of confusion to students and a violation of Legislative intent. However, if the purpose is to keep old course numbers and even generate "new" old course numbers to subvert the SCNS that practice should be investigated.

This matter is of substantial importance because it places SCNS staff in the awkward position of wondering if they should test their good relations with institutional liaison officers by acting as an enforcer of Legislative intent, which does not now exist in Statute or Rules.

c. The institutional liaison officers were found to perform their functions in both similar and different ways. No comments were volunteered about these persons by faculty. However, their link with SCNS and the communications functions they could perform can be crucial in many, many ways. Their communications role has not been defined nor have many of them been performing this function in any systematic way. Some have been openly or passively hostile to SCNS doing only what was absolutely minimally necessary. This grudging "cooperation" of a few people has made it difficult for SCNS staff to work effectively with them and with some of the faculty at their institutions.

d. Because of the arbitrariness of assumptions in cost benefit analyses and the substantial lack of information and understanding about SCNS among so many persons connected with postsecondary education there appears to be no useful purpose served by conducting such a study. Perhaps the

Policy Council could examine this issue; it would seem more productive to support the extension of the Sante Fe study to all community colleges in the state, i.e., to determine the percentage of courses transfer students are having to repeat in the universities. However, if one must have a cost indicator, perhaps the figure of $2.71 per course could be used; this unit measure arises from a division of the 1980-81 SCNS central office budget by the number of institutional courses listed in the SCNS course inventory. Or, if the central office budget were reallocated to the 37 public institutions, based on the number of courses, it would provide the State University System with the equivalent of three positions. (See the above section on unit costs for the assumptions used.)

2. Output Production and Distribution

a. The widespread absence of information or understanding about the kinds of SCNS outputs, by all parties interviewed, was astounding. Perhaps a descriptive brochure with information like that contained in Chapter IV and the supporting appendices should be prepared and distributed widely.

b. The use of the microfiche was found to be very, slight. There also were complaints about the organization of information and data on them. For example, only in the last year did the SCNS central office acquire a viewer (on loan!) with which they could examine the microfiche product they were shipping to the 37 public institutions; however, none of the staff have reviewed this product in its entirety for quality of image, completeness of data, etc. The insensitivity of the staff to the need for such quality control activity has not yet been corrected. The utility of sending out the microfiche to the institutions undoubtedly deserves review.

c. A large number of comments from actual and potential users, including faculty who specifically asked, indicated they wanted to see a computer printout. Perhaps once a year each discipline task force could have a computer printout of its courses sent to the appropriate institutional, college or department offices.

d. There appears to be three levels within the universities and an additional set of locations at branch campuses where SCNS information and products could be sent. Only with their identification and distribution of information to them does it appear that SCNS can begin to gain the understanding that it deserves.

3. Benefits and Goals

a. The benefits reported in Chapter V also need to be systematically accumulated and distributed to all concerned in some form of newsletter. All of the activities of SCNS will be of interest to someone, including those who unalterably oppose SCNS. But, new faculty, those who have never seen the "evidence" about the benefits of the System and others who have been irked by the extra paperwork might develop an informed attitude. Suggestions for improvement, appeals of misclassifications, etc., could result from distribution of this information, and those activities should help improve the System.

b. There appears to be genuine concern about the design and use of SCNS outputs for institutional administration. Numerous faculty oppose this use of SCNS data and the conduct of studies from them. Numerous State level staff persons see this as important, but not being effectively done because of a lack of understanding or commitment on the part of local administrators. Perhaps the central issue is the quality of the data base. More likely it is the lingering suspicion that many courses labeled as comparable are not so in fact and there does not seem to be an appropriate way to determine absolutely whether this is true or false. SCNS was not designed to solve the problem of poor teaching, poor advising, etc., but bears the brunt of criticism for these conditions. The decisions to equate courses seems to many faculty to have given official sanction to the poor teaching, etc., alleged at other institutions. This would seem to be an issue the Policy Council could examine in some detail and share it with the Articulation Coordinating Committee.

c. One of the "peculiar" findings from this study was that some persons thought it was all right for SCNS to help faculty correctly classify and number courses, but it shouldn't study the data nor advocate its use for improving the academic enterprise. These functions ought to be officially recognized so that the director and staff of SCNS can continue to allocate sufficient resources to them and so they can become effective at them.

4. Utilization

a. The distinction between type one and type two outputs ought to be examined by SCNS staff. Reports of actual utilization could gain additional credibility for SCNS and inter-institutional problem solving probably could be enhanced. Distribution of type two products and quality control of them appears to be areas not yet explored by SCNS staff in any systematic way (see comments about microfiche above). For example, the "authoritativeness" of SCNS materials is not recognized at many institutions even though the SCNS course inventory was at one time more accurate than anything else available. It also appears that the Teacher Certification staff does not accept the SCNS course inventory as authoritative. This matter deserves the attention of the top staff of the Department of Education.

b. The "usage" reports with staff names submitted by the institutional liaison officers for this study indicates that it's possible to survey these persons to determine their needs. This suggests that periodic product evaluation could be undertaken; it would be an excellent way to strengthen the utilization of SCNS outputs.

c. The range of faculty responses to the questions about use of SCNS materials during course conversion indicates that not only should faculty and departments be sent information about SCNS, but that they may have unmet needs to which SCNS could respond.

d. The use of SCNS materials to analyze patterns of duplicate courses and dual-level courses is still only partly accepted as a legitimate function of SCNS. Given that the first (level) digit is under the control of the institutions, this kind of analysis seems the minimal effort which SCNS should make to meet the needs of State supporters. Enough studies and concepts have been developed in this area that the Policy Council could be of assistance in legitimizing this important activity.

5. Complaints and Problems

a. The complaints or problems identified by liaison officers are extensive, but few are new or unaddressed by SCNS staff. However, the SCNS staff could take these as items for the future agendas of annual or semi-annual meetings of liaison officers. Obviously, those who have made a serious effort to work with SCNS deserve to have their concerns dealt with in some satisfactory manner. The Policy Council could be helpful here in recognizing SCNS policies which constitute reasonable and acceptable responses to the list of complaints and concerns compiled.

b. Similarly, the concerns of the faculty listed in this chapter (and elsewhere in the report) indicate that suitable responses are needed. For these, however, the facts need to be compiled, the reality of the problem identified, the problems need to be sorted out as to who "owns" them, and so on. SCNS has the opportunity to help the faculty identify the situations in which courses have been equated but are not likely to be equivalent. The director of SCNS could help faculty wanting to use the appeals process in this and other matters. Responses to some concerns of faculty are likely to require some in-depth analysis, not just at the institutional level, but even up through the field of higher education.

c. Given the variety of faculty consensus and complaints, and the persistence of many of them, a formal evaluation of them seems appropriate. The misunderstandings and incorrect assumptions of many concerns needs to be responded to, again, in some factual statements, which are acceptable to the Policy Council.

6. Prospects

a. The changing staff at SCNS and the obvious need for a "shake down cruise" to bring everyone up to full functioning needs to be recognized by task forces, liaison officers, and others.

b. There is an enormous amount of work needed to be done by SCNS staff to reconstitute (where necessary) and reinvigorate the faculty discipline task forces. The lack of planning (outside of SCNS) to involve the task forces in the numbering of the semester courses can have resulted in a vastly deteriorated course inventory, because most number recommendations from universities were accepted. In many cases only a task force chairperson or even some "available" faculty person may have been consulted. It has even been reported that some SCNS staff at various times took it upon themselves to make course inventory changes without prior consultation or post hoc reporting to task forces. This is a clear violation of the Florida Statutes and should be positively forbidden. This attitude of staff omnipotence can sometimes emerge when staff have been on the job too many years and they believe their expertise alone qualifies them to make decisions. The director of SCNS probably should occasionally telephone task force chairpersons, et al. to learn from them if this illegal practice has taken place.

c. The whole process of selecting task force members, appointing chairperson, rotating chairperson, and so on, deserves careful review. A number of surveyed faculty who were listed as task force members at SCNS responded that they were former members. The main reason for this discrepancy was that the task force hadn't met for several years and the members had had no communications from SCNS. One could hardly call this situation one in which "faculty committees" were maintaining the system. Incidentally, no central source of up-to-date task force rosters were found in SCNS and most were out-of-date. Surely this information could be easily computerized, with dates of service, and so on. Perhaps the Policy Council should be involved in reviewing this matter and consideration given to writing official rules for these positions as well as the institutional liaison officers.

d. The question of informing students about SCNS is unclear. A third or more of the faculty believe that they shouldn't be informed, but only 50% responded to this issue. Again, some forum like a Policy Council probably needs to agonize about this situation. If the faculty's chief fear is that the poor quality data base could lead to formal action unworthy of the efforts of students to enforce their rights (for automatic transferability) then the data base ought to be improved. But note that the data base can't be improved unless faculty come forward to identify incorrectly classified comparable courses. Perhaps it's only through a reinvigoration of faculty task forces and preparation of orientation materials for them about SCNS that faculty can begin to understand the need to speak up about these matters.

CHAPTER VII

SUMMARIES, CONCLUSIONS AND RECOMMENDATIONS

This chapter brings together all of the most important findings, organizes them by topical areas, makes explicit their implications and recommends various procedures and courses of action.

This evaluation study was conducted by a faculty member who presumed there was no question about whether the SCNS should continue, but only about the extent to which it was a viable means of achieving the goals assigned it. It is, indeed, a viable system, perhaps a bit shaky during a period when staff and the course inventories have been changing, but it has a good record of achievement and a continuing promise which should be realized when this current transition period is over.

A. The SCNS Central Office

1. Intra-Office

It is important that a "flat hierarchy" be maintained between the professional staff and the director to foster open communication and mutual assistance among all of the staff. It is important that experienced, productive and loyal staff be rewarded to recognize their significant contributions to SCNS; however, the contributions should include more than achievement of short range operating goals.

2. Salaries

This may not be the most opportune time in Florida to confront a salary problem, but there is an immediate need for an objective review of the basic pay structure at SCNS to determine if the salaries should be upgraded. The State's seniority pay system does provide some means for rewarding continuous service. However, the work of the SCNS staff requires an enormous variety of diplomatic relationships with many, many faculty and administrators all across the State; many times the staff must force themselves to work harmoniously with a number of people who are not always pleasant or cooperative. Without the staff's willingness to assume and maintain a cooperative (and sometimes servile) attitude, the SCNS could fail decisively, for it relies on voluntary cooperation at every step. Surely these human relations skills, on top of a required competence in the logic of the system, knowledge of the discipline taxonomies, and an understanding of the computerized data base systems makes this staff worthy of reward above and beyond the usual in state government.

3. Computer Applications

No person on the SCNS staff has had applications computer programming skills for almost a year. The last person to possess them did return as a temporary employee in the summer of 1981, thereby making it possible to produce many of what were once considered standard outputs. These products are not now standard or regular any longer and will not be again until sufficient staff are trained or these production services are contracted for with the BOR MIS or Knott Data Center. To be of service to potential and actual users in state offices and postsecondary institutions requires that this deficiency be corrected in the shortest time possible. To delay here will impair the achievement of all of the medium range goals, which has been excellent to date, i.e., the capability has been fully developed and successfully implemented until 1980-81. Furthermore, when the medium range goals can not be reached, the ultimate goals almost become impossible of achievement.

4. Consulting of Faculty

The total staff of SCNS needs to make a concerted effort to observe the statutory requirement that faculty committees are to be used to maintain the System. The professional staff, even when expert in their knowledge of a discipline, must not act unilaterally in the reclassification of courses or the classification of new ones. They should consult not just the task force chairperson about important matters for this leads the other members of the task force to think they have been removed. In the responses to the faculty survey for this study a number of faculty who were still listed on the rosters indicated they thought they were former members; some added that their task force had met only once in two years or more.

Also, it is inappropriate for professional staff to consult faculty "friends" about classification matters unless they are task force members, or unless they are the person proposing changes to the course inventory. (Also, whenever a proposer of a change is contacted directly some arrangement of notice--before or after--must be made with the institutional liaison officer, who may or may not agree to such directly negotiated changes.)

Even when a faculty task force delegates certain "routine" actions to a professional staff member, those actions should be noted and a list of them sent to all members of the task force monthly or, at least quarterly, or, delivered at the next meeting of the task force, whichever is earlier. Compliance with the law should be interpreted to mean that the entire task force is kept apprised of changes in the course inventory and given a role in the decision process whereby they decide general policy and become personally involved with taxonomic details. There should be no suspicions by faculty that the staff have ignored them in any way or pre-empted their role.

The recent uncoordinated conversion of university courses to the semester system literally forced the professional staff to ignore the statutory requirement about faculty committees. It is unfortunate that the SCNS Policy Council was not active so that it could have petitioned the Commissioner of Education about this wanton disregard for the authority of the faculty which is clearly stated in the Florida Statutes.

It might help staff and faculty relations to create a special bulletin for the distribution of information about task force actions, meetings and SCNS concerns (more about this below). In it the professional staff coordinators could share their expertise for the edification of old and new task force members and liaison officers.

5. Support Staff

The turnover of persons in the lowest clerical position is a constant drain on potential productivity. The persons entering and occupying this position at SCNS are effectively trained in a wide variety of tasks but can not be upgraded or receive salary increases equal to that available through transfer to other positions in State government. High quality performance has been demanded at SCNS and achieved by these persons; it seems unjust (and almost ridiculous) that the other staff who need the help of these people have to continuously train the occupants because of the turnover rate. Perhaps some arrangement is possible to upgrade this position when the next occupant is fully trained and ready for promotion. The more senior support staff, which is so demonstrably capable of producing an excellent variety of accurate products and records, also seems deserving of better than adequate salary remuneration.

There should be no doubt that the chief secretary also should be responsible for the assignment of general work to the other support staff. She also should assist the professional staff obtain the services and outputs they need. Perhaps a person as skilled as the current holder of this position should be considered for promotion to one of the new transition classes for State employees.

6. Profiles On-Line

Only one of the three SCNS data bases had not been converted to on-line access; this is the Course Equivalency Profiles. Their potential has not been realized, but could be if their data elements were clarified and entries and changes to them could be made from the video terminals in the SCNS offices. Because the systems analysis work for the other two computerized data bases (the course inventory and the taxonomies) was completed by the BOR MIS group it might be able to undertake conversion of the Profiles with moderate effort and cost.

B. The Policy and Performance Networks

1. The Policy Council

There is an immediate need to revive and revise the SCNS Policy Council; this seems particularly important if the faculty are to maintain the System and the director is to have a sounding board for SCNS policies and activities. The expectations and functions of this Council need to be well stated and widely distributed. Below are a specific set of ideas and details recommended for the reinvigoration of the Council.

(a). Membership. The Council membership should be all faculty, preferably those who have served successfully on discipline task forces. It should have 11 members, at least 6 of whom should come from the universities, and at least 5 of whom should come from the community colleges; they should hold academic rank in small or large institutions which are located in rural or urban areas.

(1) Initially, the director of SCNS should consult as many persons as possible for the names of faculty to recommend to the Commissioner of Education for appointment to the Council. Thereafter, the Policy Council should create a subcommittee of which the chairman will be a member, to sit with the director and professional staff of SCNS to develop a list of names; the full Council should then decide on the persons to be recommended, after hearing any reports from the director of SCNS about any persons under consideration. The approved list should be sent to the Commissioner of Education for consideration and appointment.

(2) Initially, the director of SCNS, after extensive consultation, should recommend a name (of one of the persons

recommended to be a member) to the Commissioner of Education of a person who should be appointed chairperson of the Council for one year. Thereafter, the Council should nominate and elect its own chairperson.

(3) At the end of the first year five persons, whose names could be drawn by lot, should finish a term on the Council; at the end of the second year the remaining six persons should finish a two-year term on the Council. At the end of the third year, the second group of five, selected at the end of the first year, will have completed a two-year term; this two-year cycle should continue thereafter. The director of SCNS should recommend a single name or several names to the Council, to fill a vacancy occuring before the end of a regular two-year term, unless the vacancy occurs at the time of year when other regular members are to be selected in which case the regular procedure can be used. The Council may recommend reappointment of any current members to a second two-year term. The Council should hear requests that appointments be made from institutions not currently having someone on the Council.

(4) The director of SCNS should function as the permanent secretary to the Policy Council but serve without a vote. He should prepare the agendas for the meetings in conjunction with the Council chairperson and see that the minutes of the meetings are prepared and distributed for subsequent approval by the Council.

(b). Purposes. The Council should serve these purposes:

(1) advise the director of SCNS on the matters he brings before it;

(2) hear second appeals from faculty or administrators about the classification of courses and related matters, after a faculty task force has already heard a first appeal;

(3) study the logic and structure of the System and the issues related thereto so as to adapt the System to emerging needs, and so as to perfect it and keep it operating as a high quality activity;

(4) study and review applications of the SCNS outputs so as to insure their proper usage and to recommend to the Commissioner of Education and other education officials reasonable means for implementing the appropriate applications of SCNS outputs to enhance the achievement of their potential benefits for all Floridians;

(5) bring to the attention of its members state policy developments likely to impact SCNS and propose studies or actions which will insure that SCNS continues to carry out successfully its assigned functions and purposes;

(6) examine matters arising from local concerns to determine if they are purely local or have system-wide implications, and to propose studies or actions to ameliorate the state-wide problems.

(c). Technical Advice. The director of SCNS may appoint one or more ad hoc technical advisory committees of 5 or 6 members as needed to give advice to the director and the Policy Council and its subcommittees on issues of a technical nature. A technical committee should consist of a few registrars from large institutions, the MIS directors from the BOR staff and the Divisions of Community Colleges and Vocational Education and any other needed persons.

(d). Liaison. The chairperson of the Policy Council should regularly attend the meetings of the Articulation Coordinating Committee; the director of SCNS should also attend these meetings whenever convenient. The chairperson of the Articulation Coordinating Committee should be sent agendas and minutes of the Policy Council meetings.

The director of SCNS may ask the chairperson to attend meetings of the chief academic officers of the nine universities and the 28 community colleges or such other interinstitutional bodies which may be about to consider items related to SCNS policy and operations.

(e). Oversight of Faculty Committees (Task Forces). One of the key items to be brought before the Policy Council by the director should be the matter of creating task forces and appointing members thereto. Policies should be established on the length of terms of members, selection of the chairperson, length of term in that office, frequency of meetings, etc. The Policy Council will want to organize an effort to monitor the work of task forces, determine that they are being used by professional staff and that the task forces are pleased with the service and leadership they receive from SCNS. The Council or a subcommittee of it may want to request that the task force chairpersons meet with it annually, or each member of the Council may need to visit one meeting of a certain number of task forces to gain first hand information about the extent to which faculty are playing an active role in the maintenance of the System. This latter procedure may also be an appropriate way by which Council members can gain acquaintance with persons whom they would want to propose for membership on the Policy Council.

2. The Faculty Committee

The committees of faculty from each discipline, now called task forces, should be renamed: SCNS Faculty Committee on (discipline), e.g., Psychology, Criminal Justice, etc. These committees no longer should be *ad hoc* groups; a permanent file of all members, their mailing addresses, years of service, etc., should be built and computerized.

(a). A Faculty Committee File (actually a file of SCNS Faculty Committee Members) should be coded for the generation of all kinds of mailing labels--by discipline, by institution, by transfer region (and county), and so on. These lists should become the basis for distributing information about the SCNS course inventories, changes in policy, announcements of products and their availability, results of studies and analyses and much more. A series of materials on the operation of the system could be sent all new members by using appointment dates, for example. If there are 600 faculty who are Faculty Committee members this would be an important audience to inform about SCNS and from which to receive feedback about the success(or lack thereof) of the System.

(b). Members. The law requiring faculty committees to maintain the system presumes that more than one person or two would constitute a committee. The Policy Council needs to recommend policy on the reasonable size of Faculty Committees so as to keep their travel costs down and make it easy for the members to find common meeting dates. The Council also needs to determine the proper balance between community college and university representation on these committees; length of terms, the role of chairperson and other such matters need to be considered. The Policy Council may want to be informed by staff when it appears a Faculty Committee chairperson is being uncooperative and needs counseling or replacement. A Policy Council subcommittee on personnel matters might be created to react to the candidates the director proposes to appoint as a Committee chairperson. It even might be helpful to all concerned to have the Policy Council chairperson sign an appointment letter along with the director of SCNS for each new faculty committee chairperson. The whole point of these proposals is to get faculty involved at all levels of SCNS and to make it possible for the Policy Council to not only monitor faculty participation, but to give Council members some leverage to encourage their Committee peers to do a good job as volunteers, learn about SCNS and use its products.

(c). Staff Role. The role of SCNS staff is to help the Faculty Committees make the appropriate decisions and to educate the members on how SCNS works. Staff should be able to explain to the members of a Faculty Committee how the classification of courses for their discipline differs from that for other disciplines.

3. Institutional Liaison Officers (ILO)

This group of persons, when cooperating with SCNS, are indispensable; but when it is found that some are hostile or indifferent to SCNS it is unclear what to expect. The survey of them revealed a significant minority who took their assignment very professionally. Some others had a record with the SCNS staff of being cooperative, but were not seen as very knowledgable about the System or its use in their institution. It appeared in some interviews that they were superficially enthusiastic, endorsed SCNS, but knew little about the potential applications of SCNS products.

The tasks for this position probably need to be rethought and described anew. For example, there is a minimal set of activities this person could do to insure a speedy response for service from SCNS staff. First they could always make sure a course number is recommended and listed on the course change form (if needed) or new course form. Second, they could always make sure a current syllabus is attached to all new course proposals. Unfortunately, even these minimum items can not now be counted on. The survey of liaison officers revealed that some significant fraction does not question anything sent them by their faculty or academic officers. If they are unable or unwilling to confirm the appropriateness of a recommended course number they should call the SCNS staff for assistance; in this way they can learn if additional information is needed because of incomplete local documentation or insufficient information.

The minimal functions of an ILO can be performed by an experienced senior clerical staff; many designated liaison officers are using clerical or administrative assistance to function in this way. Unfortunately, they are rarely taught how to use the available SCNS materials in a correct, effective or efficient way. Perhaps the SCNS director needs to explore the possibility of asking each liaison officer to designate a clerical assistant who can do the minimum tasks and then assign SCNS staff to train these persons. It would be ideal if the liaison officer were present during these "minimal" training sessions but not necessary. The SCNS director also should offer to provide training to any replacements for this group.

Another kind of function the ILO could perform is to explain how the SCNS works; if they could do this correctly and adequately for new and old faculty, it would be an immense help; a few do this now. Special orientation sessions by ILO's for new faculty would be especially useful; this could be done relatively easily if SCNS prepared the materials. It should be successful because these new persons would not be burdened with the biases of those who have opposed the System from its inception. Again, the director of SCNS could see that training materials are prepared and staff could demonstrate usage of them, whether at the institution or in sessions at the SCNS offices.

The "how-it-works" orientation and training materials for it are doubly important. These materials should be offered not only to ILO's, but also to university deans of schools or colleges with student advising programs. Even chairpersons (or their assistants) of large departments might also find such materials helpful. For the deans and chairpersons it might take a personal visit by the director or staff of SCNS to personally conduct the sessions.

A third set of functions, apparently somewhat difficult, is to show ILO's or their assistants how to subdivide outputs like paper or microfiche copies of course inventories and send them to college or school advising officers and/or to departments. Instructions for interpreting the outputs indicating how to find the courses wanted and how to use the printed or microfiche materials need to accompany these materials. Given the survey evidence that so many chairpersons, *et al*. have never seen these items it would be appropriate for the SCNS staff to build a second computerized mailing list for the SUS and its 500 chairpersons, deans and other officials who might be interested in receiving the materials. This group should be sent a monthly newsletter about SCNS services, products, developments, meetings and discipline conferences. The newsletter could include a separate order slip for SCNS materials or one could be included on the reverse side of the mailing label page. If these persons were also coded on a computerized file like the Faculty Committee members this would be a significant direct mail population of about 800 SUS faculty (assuming no chairperson of departments are also Faculty Committee members). Similar lists could be compiled for community college division chairpersons, deans, *et al*.

C. Authority and Communications

1. Location of SCNS

SCNS is located as a part of the central staff functions in the Department of Education because its activities cross the major divisions of the DOE. It seems appropriately located in the sense that it would appear to be a very sophisticated element of a state information system. However, this tends to give SNCS a flavor of being primarily a course inventory operation. A number of State education staff persons interviewed for this study commented specifically about the fact that many of the ultimate goals of SCNS would not be realizable unless the work and products of SCNS were seen as relating to the improved management and administration of colleges and universities. The perception that SCNS could function as an "activist" agency was contrasted by some with a view of SCNS as a passive office whose staff entered courses into a computer inventory. (Because the ultimate or long range goals arise from statutory enactment and professional expectations it is not surprising to find some potential conflicts between the goals.) What seems to have been suggested by the educational staff persons interviewed is that SCNS is not likely to appear to be a management aid until institutional administrators adopt its outputs for this purpose. Several other persons indicated that if a central postsecondary coordinating board existed, SCNS should certainly become one of its staff components. The use of SCNS outputs by the consultants to the former Joint Legislative Executive Committee on Postsecondary Education indicated that it could provide some data useful to statewide planning. The question thus arises whether SCNS might have a greater opportunity to achieve its ultimate goals if it were part of the organization supporting the new Postsecondary Education Planning Commission.

The answer to this question requires clarification of the mission of SCNS. If its potential contributions to improving certain institutional functions are not seen as very important, then SCNS may have to exist primarily as a relatively sophisticated and unique course inventory system. This does not preclude the analysis of various course related phenomena but it does relegate that to an ad hoc status. Even the previous emphasis on enhancing communication and diffusion of SCNS products becomes less urgent if the course inventory function is to take first priority at SCNS. Perhaps discussion of the possibility of a switch to the PEPC would help clarify the desired priorities between the medium range and long range goals or among SCNS' ultimate goals.

2. Codification and Rules

Many of the most important statewide policies for SCNS appeared first as proviso language in the annual appropriation acts which have now expired; that language now does not exist in any statute or rule. This lack of explicit or permanent authority seems to have permitted SCNS a great amount of flexibility and legislative clout in the early days; however, this situation also seems to have made SCNS vulnerable to a large number of attacks and charges from institutional faculty and administrators and system officials; all of these had to be taken seriously by the director for fear that if they went unanswered the very survival of SCNS would be threatened. The recent inability of BOR and DOE officials to include SCNS staff in the planning for the massive conversion of 22,000 courses to the semester system indicates that even the statutory requirements for SCNS can be ignored as if they didn't exist. Thus, it is time that a more elaborately worded statute be passed by the Legislature, or that implementing Rules be passed by the State Board of Education for SCNS. Here is a sample list of topics which should be included in either a statute or rule:

(a) automatic transferability of courses and the exceptions thereto;

(b) appeal procedures for students to follow when they believe they have been required to duplicate a course;

(c) the Policy Council and its purpose;

(d) the Faculty Committees and their authority to make binding decisions about equivalent courses to support (a) above;

(e) the role and functions of the Institutional Liaison Officers;

(f) the holding of Faculty Discipline Conferences and their purposes;

(g) the appeals process for institutional faculty or administrators who wish to appeal decisions of task forces (to them) and to the Policy Council;

(h) general powers of the director, as for scheduling activities, planning discipline reviews on a four or five year cycle, having final authority to accept or reject a new alpha prefix, and so on;

(i) prohibition of dual courses (e.g., two courses with same content but different course numbers); prohibition of duplicate course numbering systems (e.g. a separate local system); requirement that a student who pays upper division fees must enroll in courses only with a first digit number of 4 or lower, or a requirement that an undergraduate student enrolling in a course with a first digit of 5 or more (except 9) should have to meet the performance requirements for graduate students if (s)he is to receive full credit, or that (s)he could be assigned a 4 first digit if the student is permitted to do less work (note that these are not proposals to standardize the first digits on an inter-institutional basis);

(j) permission to publish information bulletins and newsletters for the purpose of explaining SCNS policies and practices and the applications of SCNS outputs;

(k) authorization to notify institutional presidents when it is found that unauthorized practices or course identifiers are being used; permission to visit and audit the course record files of an institution when flagrant violations of SCNS policies are found over a six month period;

(l) a requirement that each public institution send 5 copies of all of its catalogs, counseling manuals and semester class enrollment schedules to SCNS.

3. Communications

The most obvious finding, repeated over and over in various guises, is that SCNS has not been able to direct its intended message or its beneficial products to the right populations; this results in large part from a failure of the volunteer system. There is an overwhelming need for a formal communications program at SCNS.

(a). Intended Audiences. A general audience probably should be considered to include Policy Council members, all Faculty Committee members, all chairpersons and deans in the SUS plus institutional liaison officers, academic vice presidents, registrars and admissions officers, and heads of all academic counseling offices. Parallel positions should be identified at the 28 community colleges and their separate campuses, with division directors substituted for department heads. To this first group should be sent a monthly or bimonthly newsletter about SCNS.

Another large group with persons of differing roles would include student government officers; faculty union officers; legislators (whose staff agreed to receiving a copy) and various legislative committee staff; select DOE, BOR, DCC and DVE staff; education cabinet aides, and executive education-budget staff.

Particular issues of the newsletter should be sent to these persons and some copies might be sent to communications media, professional associations, accrediting groups, ERIC, and others.

(b). Media. (1) A monthly or bimonthly Newsletter seems an absolute necessity. It should report on: Policy Council meetings, the schedule of them, its members, etc.; the schedule of Discipline Conferences and their results; impending taxonomy changes; course change activity volume and cycle of workload; schedule for production of outputs, and announcements, descriptions, and potential usages of products about to be distributed; reports of applications of SCNS outputs; reports of ad hoc analyses or studies; how to order special products, etc.

(2) Another publication should be periodic Bulletins to Faculty Committees. These would include abbreviated minutes of Faculty Committee meetings, actions taken by staff between Bulletin issues and/or Committee meetings; new information which should help Faculty carry out their activities; some standard explanations, presented in serial installments, about how certain aspects of SCNS work, with the series repeated every two years; and names, affiliations and telephone numbers of Committee members. The Bulletin for a particular discipline could be distributed to the Faculty Committee members and to the chairpersons of the discipline departments and divisions in all 37 public institutions.

(3) Training materials need to be prepared, pre-tested, advertised in the Newsletter and Bulletins, and made available in orientation and training sessions. These could also be made available to persons attending the Discipline Conferences. Copies of the SCNS goals and descriptions of its products and

services should be available and distributed to new Policy Council and Faculty Committee members and Institutional Liaison Officers. (It is especially important to spend time at the Discipline Conferences on the policy of automatic transferability of common courses and other topics about which faculty are least knowledgable, as indicated by the survey results.)

4. Charges

The SCNS needs to be able to charge for printouts; subscriptions to newsletters and reports, and other outputs. This may require some kind of authorization from the Legislature or an official rule. The billing policy should apply to persons and agencies not directly involved with SCNS or for others who want second or information copies of materials. The billing for printouts could be done through Knott Data Center, perhaps, so that it could recover some of the paper cost. A "first copy is free once a year" policy might be established or some other reasonable arrangement made to insure some materials are distributed. These kinds of policies need to be worked through before SCNS advertises that copies of discipline course lists and other computer printouts are available. However, these policies should not deter persons wanting materials from SCNS.

5. Basic Materials

At least once a year it is important that each university, particularly each department, receive a paper printout of its course list(s). A number of department chairpersons want at least one copy of a printout for their discipline. It seems clear from the faculty survey that such a document might have been widely used during course conversion if it has been available. If only 7% of the faculty surveyed have used microfiche there is a question about whether it should be sent to all faculty or Committee members. Microfiche might be sent three times a year to the Institutional Liaison Officers since they have such a large volume of materials to keep on hand; they can use it to update their catalogs and cross check their course approval records. It ought to be determined whether it is possible to convert to microfiche only the course changes occuring during the year. Disciplines with entirely new prefixes could be microfiched in their entirety and distributed.

6. Follow-up

The director of SCNS should periodically survey all who receive SCNS materials to see if they are useful, being used or need to be changed in some important ways. The collection of the names of actual users so they can be interviewed by telephone would also be appropriate. Sampling the user population should be cost effective.

The survey of faculty revealed a number of persons wanted information about SCNS, its products and anything else available.

D. Type One Outputs

Many persons acquainted with SCNS could not distinguish between the creation and selection of alpha numeric identifiers for courses and the production of lists, tables, charts and analyses from the three SCNS files (i.e., the course inventory, discipline taxonomy and course profiles). Faculty Committees, with the aid of SCNS staff, confirm or assign course identifiers, which are then entered into the course inventory. A discipline taxonomy is created for each new discipline and changed by a Faculty Committee; it is used to classify a course and assign the course prefix and number. A Profile is created when a new classified course is added to the course inventory. One Profile exists for a common course, regardless of the number of institutions using the same course identifier. The Profile was intended to contain the data elements which when entered would distinguish one classified course from another. Thus, it is the course identifiers, taxonomies and profiles in use and the files in which they reside that constitute type one outputs. The course inventory is the file of all courses listed at the institutions participating in SCNS.

1. Course Identifiers and the Course Inventory

The staff at SCNS occassionally receive requests to change an existing course only to find that it does not exist in the course inventory, i.e. the referenced course identifier has not been created. A "paper trail" exists in the SCNS office to support creation of new course identifiers; it can be checked to determine if the course identifier had been created, was confirmed by a Faculty Committee, and then was entered into the course inventory. When no paper trail exists the presumption is that the institution adopted an SCNS course identifier in a unilateral action which is statutorily illegal. The extent of this practice is unknown, but the practice has been found at several community colleges and universities. Attempting to determine the extent of this practice is almost impossible currently given the conversion of 22,000 or so university courses to semester credit.

Two strategies for coping with this problem in the future may have to be adopted. First is to require that each public college or university submit to SCNS a copy of each schedule of classes it uses for the enrollment of students. The SCNS staff could then randomly sample institutions, disciplines and courses. If any unauthorized courses are found listed a letter should be sent from the director of SCNS to the president of the institution explaining that his school was not in compliance with the statutory law; the letter should request that the requisite paperwork be submitted so that the unauthorized course numbers could be reviewed and confirmed (or changed) or a correct identifier recommended.

A second strategy is to have an ad hoc visitation committee appointed from the membership of the Policy Council, the appropriate Faculty Committees, and the director's appointed technical committee. After SCNS staff have accumulated sufficient evidence that unauthorized course identifiers continue to be used, the director should create the visitation committee, obtain DOE clearance, and visit the offending institution. This kind of visitation and audit would be appropriate after the institution was notified that it was violating the statutory law, that it should examine its current course list and add any courses not on it, submitting the proper paperwork within 30 days, but had failed to take the appropriate action. This notice also should be sent to the president of the institution.

Both or either of these actions should indicate that the Institutional Liaison Officer has been unable to satisfactorily perform his/her minimal functions; this matter also should be brought to the attention of the president.

Another mis-use of the SCNS course identifiers which may require a State policy determination is the inclusion in catalogs of "look alike" numbers. That is, there appear in the catalogs of many community colleges a large number of courses with identifiers like those in SCNS but the courses aren't thought to be appropriate for inclusion in the SCNS course inventory. The courses in question are usually vocational, occupational, or listed only for something entitled institutional credit, technical credit, clock hours or other designators.

The use of course identifiers which imitate SCNS symbols can be dealt with as a matter of policy by giving SCNS staff and Faculty Committees exclusive control over the use of these symbols. That is, only approved course identifiers should be permitted to be used in the catalogs of public community colleges or universities. The policy could then be stated that any two (but not three) digit alpha prefix not part of an SCNS discipline taxonomy could be used at the discretion of an institution. As for the number, no four digit number should be permitted to be used, unless certain other requirements are met; these would be: (a) no course could be assigned a first numerical digit of 1 or higher unless the course was evaluated by a Faculty Committee of community college and university faculty to be a course for which college level credit could be awarded; included should be the traditional technical courses at the postsecondary level which require college level writing, calculating and/or analytical skills, and which enroll only persons who have received high school diplomas or equivalent evidence of completing successfully a secondary education. Without these stipulations there will be no reliable procedure for identifying which courses are for college credit. Universities in particular should be asked to endorse this proposal.

(b) A non-postsecondary course should be assigned a first digit of zero (0) to clearly designate its non-college level of complexity and the clientele it services. The distinction between 0 and 1 should be on whether a course focuses more on procedures and how-to-do-it methods than on analysis of complex phenomena which requires broad conceptual knowledge. Secondary level courses would also receive a zero first digit. Any courses designed to meet entry level job training requirements which rely upon the student possessing basic (high school) literacy skills should be assigned a zero. Even remedial courses in colleges and universities whose primary content is common at the secondary level should be assigned a zero.

(c) Middle school and junior high school courses would be assigned two leading zeroes. Those courses of a vocational nature which are offered at less than the high school level should be assigned two leading zeroes to clearly designate them, no matter whether or not adults are involved. Courses for the training of persons at the semi-skilled level should similarly be numbered this way.

(d) Basic education and fundamental language training courses should be assigned three leading zeroes.

(e) Any appropriate three digit alpha prefixes could be assigned the non-college courses in (b), (c) and (d). It is recommended that the selection be coordinated with the Divisions of Public Schools and Vocational Education.

The need for this separate system of leading zeroes is based on the need to insure that any college-level credit courses can be distinguished clearly in the SCNS course inventory. That presently can not be guaranteed because some community colleges have permitted credit to be assigned to some vocational courses which are not post-secondary in character. This practice has been ordered to be stopped by the Division of Community Colleges; it may have been stimulated by the provision in the 1981 Appropriations Act which required SCNS to create course numbers for vocational courses. Clearly, there is a need for policy guidelines of this kind to help insure some uniformity in the assignment of course identifiers. Most importantly, with the formal restrictions in the BOR rules and in the university catalogs against transfer of occupational courses, these guidelines are needed to improve the quality of the existing SCNS course inventory so it can accurately serve the needs of the universities.

Finally, the need perceived by some registrars to maintain locally a separate set of unique institutional course numbers needs to be examined on site. The ostensible purpose of an institution doing this is for it to have a permanent file of all instructional offerings, in which would be included a permanent record of each course and the many different statewide course identifiers assigned to each one. The modern mini-computer makes this feasible for any college, school or even department. This is a reasonable information practice, but to insure that it is not a strategy to subvert the statewide character of SCNS and unnecessarily confuse the student, certain restrictions may have to be imposed. For example, it might be appropriate to restrict the use of alpha prefixes to the SCNS or make their use subject to its approval, as for the vocational courses mentioned above. One thing which needs study is the ability of institutions to assign department codes to the courses taught in each department. Most large institutions have course files which must have a unique section number assigned each course offering each semester. This may be a five or six digit number; surely these could become permanent and used as local inventory numbers; they could be created (in sequence) out of need, and not built from a classification of subject matter, as are SCNS course identifiers.

2. Discipline Taxonomies

A number of institutional officials and faculty were found to be disturbed about the recent wholesale changes of some discipline taxonomies. With the catalogs carrying more program planning information in the front of them, and the building of computerized advising systems based on these data, all of which use individual course identifiers, some policy is needed about the frequency of wholesale changes to taxonomies. The issue is one of balance and probably should relate to the cycling and scheduling of Discipline Conferences. That is, if the Conferences are seen as necessary about every four or five years, then perhaps the taxonomy of a discipline shouldn't be restructured more often. If a Faculty Committee believes it is necessary to change a taxonomy, that fact should be seriously considered by the Policy Council and the director of SCNS before the changes are sent to institutions. Such changes can be so wrenching for faculty and involve so much labor that they need to be scheduled when they are both necessary and least disruptive.

It seems apparent that some new principles are beginning to emerge in the classification of courses. The one of greatest import might be the distinction which has been made between predominantly descriptive courses and those which are analytic and explanatory using theoretical concepts. This idea deserves examination by the Policy Council and many Faculty Committees, particularly by those wanting a strategy for classifying lower level or beginning course work. Use of this distinction permits courses with the same subject matter to be classified as different, based on the evidence in the syllabi of the use of explanatory concepts.

3. Profiles

Much work needs to be done to make the profiles serve the purpose intended, i.e., to reveal the unique characteristics which distinguish one classified course from another. Currently, the emphasis has been to use the profiles to include all kinds of statements which explain the exceptional characteristics of a course when it is not to transfer automatically. A flag code of "P" is listed by the course number on many of the lists and tables generated from the course inventory; it is to indicate that the profiles should be consulted to learn the exceptions to automatic transferability or other peculiarities. The use of the profiles is so infrequent, as revealed in the surveys, that it appears this reference system is not working well at all. It might be better to devise a standard P-code with numbers designating the standard warnings, restrictions, etc. These caveats ought to be common enought now to be easily coded and printed in the "flag" column of all printouts and CRT images, thereby removing the need to enter a second file. The "Pn" codes could be a part of the instructions, etc. sent with each course list, table or directory.

4. Operational Goals

Virtually all of the operational goals have been implemented successfully, one time or another. A number of them were suspended during the period the universities were converting to the semester calendar. Unfortunately, the use of Faculty Committees has been virtually absent this past year for the same reason. Their use must resume, but the staff have not been able to do much here because of the internal organizational conflicts and personnel changes, including the absence of a professional staff person during the summer of 1981 and new staff having to be oriented currently. There is experience still among the staff or within consultative proximity to make it possible for the operational goals again to be fully implemented. They apparently, however, are going to need all the encouragement and support from the DOE that can be given them.

E. Type Two Outputs and Their Utilization

1. Products and Services

These outputs are the physical products and services generated at SCNS. Seven kinds of reports were identified which are produced by computer after SCNS staff provide sufficient parameters and enter them into the appropriate SCNS computer programs. None of the current staff at SCNS can perform the programming steps necessary to generate all or most of these reports. It is possible to learn these skills and most staff should be quickly trained to generate these reports. This is a critical need.

In the past at least one person on the staff at SCNS had sufficient training and experience with computer programming that they could readily learn what was needed at SCNS. Because no one now has these skills it is unclear when in the future any ad hoc reports may be produced; the skill needed has to do with knowledge of the file management programs which are most useful to SCNS. The use of the skill is often referred to as applications programming. This skill is learnable, but it appears to require some training and regular experience to keep it fully operational.

Some other products and services identified in the study were: copying SCNS computer file tapes for universities and community colleges; generating microfiche copies of reports, which also requires some applications programming; supporting operation of remote terminal access to the SCNS computer files; providing documentation about SCNS; and providing information and services related to SCNS.

To cope with the computer skills absence, the director should create a technical committee of the MIS directors from the three divisions of DOE and have them formally investigate this situation. They should prepare a written report which should be distributed to all persons who are concerned about SCNS being able to produce type two outputs.

2. Utilization

(a) Documentation found or solicited for this study showed a very wide variety of usages of SCNS type one and two outputs. Reports of actual usage continued to appear long after data collection for this evaluation study was terminated. It seems apparent that a number of professional staff at the colleges and universities are finding uses for SCNS data and information beyond initial expectations; the computerized counseling systems at Miami-Dade Community College and the first University of Florida are prime examples. It appears that usage may occur at any of three levels in an institution and within three or four major staff offices across the support level of an institution. For this reason, a systematic and detailed study at all three levels in one or two large universities and community colleges could be most revealing.

The reports of actual utilization of SCNS products were organized into eight categories: admission and registration (4 reports); articulation and course comparability (2); community of scholars (2); counseling and advisement (4); curriculum analysis (8); funding methods and student costs (2); regional analysis and course comparability (3); and student transfers (2). Reports of usage should be solicited throughout Florida postsecondary education agencies and institutions.

(b) Reports from Liaison Officers. Most university liaison officers reported that SCNS materials did not appear to be as authoritative as catalogs; the college officers said they thought the counseling manuals were more authoritative. If their perceptions are correct, though, it also should be noted that few copies of relevant SCNS products were available or widely distributed. Only a few persons demonstrated knowledge of the variety of SCNS products and their potential benefits.

The liaison officers submitted a list of persons who used SCNS materials at their institutions. Their lists indicated that the persons most likely to use SCNS materials were the registrar, transcript evaluator, catalog editor and curriculum committee member. The community colleges seemed to have persons in a greater variety of positions using SCNS materials than did the universities. One university officer admitted that he and others at his institution didn't believe there were any benefits realizable from SCNS or its products; this attitude, of course, has led to a self-fulfilling prophecy because no one there was informed about or received the products of SCNS. A telephone call to a large counseling office at a school at this university revealed the counselors did not know anything about SCNS products and they had microfiche readers and other equipment in their offices.

(c) Faculty. Almost 50% of the faculty chairpersons and task force members surveyed indicated in several ways they knew little or nothing about SCNS products and that no one had told them about the products and services available. On the average, roughly 25% of the faculty respondents know and use some SCNS products; this percentage is eight points smaller than the percentage of faculty task force members in the survey. There should be little doubt that the faculty were poorly informed and that this was due in part to poor leadership at the institutional level and to the inability of SCNS to deliver to them the kinds of information about SCNS of which they were interested. Perhaps it's a marvel that any faculty were found to be using some of the SCNS materials.

3. Partial, Non- and Mis-Use

Probably the greatest potential users who do not subscribe to SCNS products are the evaluators in the Teacher Certification Offices of the Department of Education. The administrators and analysts there know little about the System and ascribe to it less credibility than do the most dissatisfied faculty. It is easily possible to remedy this situation. Placing the Profiles on line and permitting the Teacher Certification analysts to add an information item to courses which is acceptable for teacher licensing would seem to be an enormously beneficial arrangement, for university students and counselors as well as the certification staff. This situation deserves a complete investigation by the director of SCNS and the Policy Council; this matter ought to be brought to the attention of the Commissioner and Legislative staff.

Neither the Divisions of Community Colleges or Universities have made many uses of SCNS outputs. Some SCNS reports were shared with the BOR Program Review consultants for Criminal Justice, who early on commended and used the data. However, the consultants repeated in their final report (twice) that SCNS was the second most important factor in the decline of enrollment at the FSU School of Criminology. In fact, SCNS helped uncover the problem of police training courses being assigned credit and entered into the course inventory in 1973; see page 160, Chapter V. Such irresponsible statements do not begin to explain the problems which success has brought to the FSU School of Criminology. However, it seems doubly irresponsible for the BOR academic affairs staff to have let these statements stand unqualified in an outside consultant's report and to not have invited and allowed the SCNS staff to have reviewed and responded to such charges. An invitation to respond is sent each university, so this same privilege should be extended to SCNS.

The inclusion of erroneous and irresponsible information about SCNS also appears in the Psychology academic program review report, of which it too was prepared by outside consultants. In both this and the previous report a single institutional faculty member was able to sway the outside consultants who apparently took no time to carefully check their facts. Perhaps the Board of Regents, its new Chancellor and the Council of Presidents should be made aware of these problems.

Finally, there appear to be several uses to which SCNS products and procedures could be used, but they aren't because it would not be administratively convenient. It is unfortunate that students or others impacted by this resistance could not be informed about the fact that a "better" way of doing things does exist. Perhaps well written descriptions or applications with illustrations could be prepared in stock form (some already are), titled Applications of SCNS Products and Procedures. These materials could be distributed whenever called for or the opportunity seemed to warrant them being sent out; as this study revealed, institutional memories are very short and need jogging every two or three years.

4. Goal Achievement

The medium range goals, i.e., production of outputs and services, have been achieved in the past but are currently on shaky ground. Retraining of staff or contracting for services seems necessary to again achieve full productive capability.

The long range goals of SCNS have been partially fulfilled in all but one category. There has been no movement toward standardizing the assignment of the first digit, which can be explained by university reluctance to permit it; of course, most of the original reasons for wanting uniform first digits have been put on the shelf. But see the section above, D.1., for which new reasons are advanced.

The evidence for the success of the SCNS goal of facilitating transfer students was found in a single study from Santa Fe Community College. It found only 0.25% of all the courses taken by its students transferring to the nine public universities in one quarter were repeats of courses with the same course identifier. The procedures and computer programs for carrying out this study are being standardized so that it can be conducted for all 28 community colleges. Once the course rates are available for all colleges, they can investigate to determine if their counseling is sufficient, if they have enough common courses with the universities and so on. They can also see which universities seem to be violating the concept of automatic transferability, and they can study whether some students are retaking courses to increase their grades. Note that type one outputs make these studies possible.

In conclusion, the evidence seems clear that in relation to its goals, SCNS has been moderately successful. However, it has leveled out in its rate of achievement and probably has fallen back some from its peak in 1979-80. If the information found in this study is correct then there appears to be a trend toward greater adaptation of SCNS outputs by a growing number of institutions. Thus, it appears that SCNS has played a remarkable role, along with the new computer technology, in making it possible for some institutions with energetic and imaginative staff to become more adaptive to the current needs of students and faculty.

F. Faculty Attitudes

1. Local Reactions

The faculty remain dissatisfied with SCNS even at times when they admit to its benefits and use it appropriately. The principal investigator has had almost seven years experience of meeting with faculty and listening to their reactions about SCNS. The volunteered negative comments received from the faculty survey further added to the information gleaned from a large number of intensive discussions with faculty these past six months. From this extensive and intensive experience it appears that four factors about SCNS can be identified as the underlying causes of faculty dissatisfaction. These arguments will be presented here as delivered to the researchers, with most passion and expletives deleted.

(a) Alpha subject prefixes. Having to learn new course identifiers is not uncommon in large institutions where some department is always in the process of restructuring its curriculum. However, the SCNS subject matter classification system many times has led to the division of courses in a department among more than one prefix. Learning the several new departmental prefixes and numbers was difficult enough to cause dissatisfaction for it made advising students a more difficult chore. But that was only the beginning; almost every other department in each institution lost its old single department course identifier and also acquired one or more alpha prefixes along with new numbers. This made the advising of undergraduate students extremely difficult, for almost every course had to be looked up in the catalog in order to obtain sufficient information about its content, level and sequencing. Some faculty were able to make up lists of frequently chosen courses and retain the list from one enrollment-registration period to the next. Some institutions published conversion tables. But there was no predictable way for faculty to quickly and efficiently go to the catalog and find what was needed, a not unusual problem anyway, but made substantially more difficult by the subject matter alpha prefix system. Clearly, this aspect of SCNS did not make advising students easier, more accurate or more efficient; nor did most institutions attempt to help faculty solve this problem.

(b) No sequence indicator. One of the most difficult problems in using classified course numbers is that they contain no sequencing digits. In fact, combined with multiple prefixes, the course numbers within an institution appear confusing if one doesn't realize there are no sequence digits: for example, EDA 5506 may be sequenced in the curriculum before EDA 5505 or EDH 5505 because these identifiers represent an inventory of subject matter. When it is realized that the sequence data as well as the departmental code are missing, then the need for special course lists with supplemental information become evident. It is readily apparent to even the most good humored faculty member that advising has become something of a bureaucratic chore just trying to keep the course sequences straight. Then, when a massive taxonomic change occurs, the situation seems to become a data nightmare, all over again.

(c) Who's to blame? Clearly it's the State; it's their information needs which are overriding the needs of faculty who require simple easily retrievable information with which to advise students. This is another form of meddling by the State which has absolutely no value for any particular department and hence is wasteful, dumb and an insidious invasion of institutional and departmental prerogatives (it is often said).

(d) Unequivalent common courses. "My courses are not 'common'!" Furthermore, any presumption that a course taught by an incompletely trained (non-Ph.D.) community college instructor could be the equivalent of one taught be a bona fide university faculty member is an unjustified and incorrect assumption, no matter what. It is not a status difference, but a knowledge difference which makes it largely impossible to find genuinely equivalent courses taught at both a junior college and a university (so the argument goes).

2. Analysis of Faculty Reactions

The first two reactions certainly are correct as factual matters. The difficulties could be ameliorated by departmental, school or institutions staff preparing counseling and advising guides in tabular form so that all of the alternatives are laid out. The two computerized advising systems mentioned previously will certainly do this, even making it possible for the student to be responsible for making sure the minimal program requirements are met. The SCNS Course Equivalency Directory will help faculty make quick decisions about common courses for transfer students, but even these are not available to 75% of the persons who might use them.

(a) It is recommended that the Course Equivalency Directory be generated on paper for each alpha prefix but include _only_ the common courses; these could be sent to each department chairperson in the nine universities, with a note asking that they be duplicated for each faculty member who counsels students.

To the third issue: it is true that the State Legislature and the Department of Education are indeed responsible for this System. The State's interest is multi-institutional, and focuses on statewide service to constituents, taxpayers and students. The faculty have been given the opportunity and responsibility to shape the quality of the System and to help make it work so it will meet their needs. Clearly they are coproducers and consumers here.

(b) It is recommended that institutional presidents encourage faculty to participate, and to become knowledgable about the SCNS. Of course, SCNS must communicate and deliver information products when and where needed. And, faculty need to be appointed to the Policy Council, discipline committees, etc.

The fourth dissatisfaction expressed by significant numbers of university faculty needs to be submitted to empirical investigation. This claim may be true in some instances, but it is a matter which can be studied and about which objective data can be gathered. A mere assertion that university faculty with Ph.D.'s teach lower division undergraduates better is insufficient evidence that the assertion is a fact. Until such time as the real evidence is in, the decisions by peer Faculty Committees should be recognized by all faculty as the best that's possible. If a particular faculty person feels aggrieved about the classification of a course, then he or she should appeal the matter to a Faculty Committee by supplying it with data with which it may evaluate the situation. An appeal to the Policy Council is also possible.

(c) It is recommended that systematic studies of student achievement be designed for the same course taught at different kinds of institutions; student abilities should be matched before rates of achievement are compared.

G. Complaints and Problems

A number of complaints and problems were identified in the surveys of institutional liaison officers and faculty. Some appear in the report, others can be found on the survey instrument returned by faculty. The director of SCNS and the staff need to examine these and determine if any can be settled by a quick survey of their files or records. A large group is expected to be identified as falling within existing policy decisions, while there may be some requiring new policy actions. These items could become part of the ongoing agenda of items to be considered by the Policy Council.

It is recommended that these complaints be used as a means of writing standard explanations about the operations and policies of SCNS so any college student could understand them. These standard explanations could be published in the SNCS Newsletter, included in documentation about SCNS, etc. It would certainly be appropriate for the Policy Council members to review these items before they are "promulgated."

Unfortunately, the misunderstandings about SCNS, its purposes and goals, make it necessary that a large number of statements need to be prepared which explain what SCNS was not designed or expected to do. These could be prepared as questions and answers or like the statements of incorrect assumptions listed in Chapter VI.

H. Informing Students

The faculty feel, according to the survey, that they see no need to inform students about the use of SCNS materials or the policy of automatic transferability. This attitude may stem from their beliefs about the non-equatability of courses, as stated in argument F1(d) above; or it may be they don't want to create another means by which they could be hassled. Other survey evidence indicates that the faculty places high reliance on advising students but not on common course numbers. Perhaps if faculty are given reliable information about SCNS their attitude may change. This ought to be an early topic for the next Policy Council.

I. Current Ambiguities

1. Vocational Course Conversions

The 1981 Appropriations Act for Florida contains a provision requiring that vocational "courses" be converted and classified in the SCNS. That task seems formidable; the director of SCNS has estimated there are 91,000 vocational courses which would probably convert to about 21,000 regular courses. This conversion must occur first, then development of a taxonomy for each subject speciality, providing a taxonomy for each speciality area can be agreed upon, then all courses classified and assigned identifiers. It probably is appropriate to postpone this project indefinitely. It would be especially helpful now for SCNS to be excused from this chore because of the need to reconstitute Faculty Committees and have them consider the results of university course conversions; it may take several years to complete this large effort. Therefore, this is hardly the time for a small staff with new members to undertake new projects.

2. Quality Control

(a) As part of the response to the university course conversions it is essential that each university assign a local person to crosscheck its course listings with those from SCNS. The latter needs to make sure no courses remain in it which have been dropped by a university; similarly, the SCNS wants to make sure it has entered in the course inventory all of the courses approved at the university. This need might require a request to a university president, if an institutional liaison officer and the registrar refuse to undertake this action. What is at stake here is the integrity and quality of the SCNS data bases.

(b) This writer believes the director of SCNS should hypothesize that at least five percent of the entries in the course inventory are incorrect, inappropriate or no longer on the approved list at an institution. Sampling, using random numbers, of course, then double checking courses, should become part of a regular procedure for quality control of course identifiers in use at SCNS. The staff need to understand that no matter how accurate they believe their work to be, other potential error sources exist, e.g. in large data bases simply copying errors may induce error rates as high as 10% for all data elements entered. Obviously, a more experienced staff, if highly motivated, can reduce this error rate substantially. There is no experience at SCNS to predict the error rate to be five or 10%, but then no one has checked (another staff person's work) to learn what the rate is, in fact. Again, the point of this concern is to insure the quality of the data base by validating through sampling techniques the accuracy of entries within it. Where a university, such as FSU, has checked and re-checked its course inventory list, the error rate should be very low, but not necessarily zero because each course record has several data elements. The procedures to validate the quality of the data base ought to be added as an operational or short range goal. When this crucial step is institutionalized, the products to be generated as part of the achievement of the medium range goals may be said to be reliable reports of the way the world is, based on an inventory "of what is, what is alike, and what is different," the number one goal of the first director of SCNS, Dr. Michael A. DeCarlo.

APPENDICES

APPENDIX A

SCNS COURSE NUMBERING PRINCIPLES, POLICIES AND PROCEDURES

Contents

1. Statement of Explanation About SCNS to be Included in College and University Catalogs
2. Summary of Basic Terminology, Bases for Development of Taxonomy, etc.
3. Directory of Prefixes (By Subject Matter Area)
4. Institutional Identification Codes

(Statement To Be Included in Catalogs of Florida's
Public Community Colleges & Universities)

Florida's Statewide Course Numbering System

The course numbers appearing in the catalog are part of a statewide system of prefixes and numbers developed for use by all public postsecondary and participating private institutions in Florida. One of the major purposes of this system is to make transferring easier by identifying courses which are equivalent, no matter where they are taught in the state. All courses designated as equivalent will carry the same prefix and last three digits.

The classifying and numbering of courses was done by community college and university faculty members in each academic discipline. Their work was reviewed by faculty members in all of Florida's postsecondary institutions who made suggestions and criticisms to be incorporated into the system.

The course numbering system is, by law, descriptive and not prescriptive. It in no way limits or controls what courses may be offered or how they are taught. It does not affect course titles or descriptions at individual schools. It seeks only to describe what is being offered in postsecondary education in Florida in a manner that is intelligible and useful to students, faculty and other interested users of the system.

The course numbering system was developed so that equivalent courses could be accepted for transfer without misunderstanding. Each public institution is to accept for transfer credit any course which carries the same prefix and last three digits as a course at the receiving institution. For example, if a student has taken SOC _000 at a community college, he cannot be required to repeat SOC _000 at the school to which he transfers. Further, credit for any course or its equivalent, as judged by the appropriate faculty task force and published in the course numbering system, which can be used by a native student to satisfy degree requirements at a state university can also be used for that purpose by a transfer student regardless of where the credit was earned.

It should be noted that a receiving institution is not precluded from using non-equivalent courses for satisfying certain requirements.

General Rule for Course Equivalencies

All undergraduate courses bearing the same alpha prefix and last three numbers (and alpha suffix, if present) have been agreed upon to be equivalent. For example, an introductory course in sociology is offered in over 40 postsecondary institutions in Florida. Since these courses are considered to be equivalent, each one will carry the designator SOC _000.

First Digit

The first digit of the course number is assigned by the institution, generally to indicate the year it is offered--i.e., 1 indicates freshman year, 2 indicates sophomore year. In the sociology example mentioned above, one school which offers the course in the freshman year will number it SOC 1000; a school offering the same course in the sophomore year will number it SOC 2000. The variance in first numbers does not affect the equivalency. If the prefix and last three digits are the same, the courses are substantively equivalent.

Titles

Each institution will retain its own title for each of its courses. The sociology courses mentioned above are titled at different schools "Introductory Sociology," "General Sociology," and "Principles of Sociology." The title does not affect the equivalency. The courses all carry the same prefix and last three digits; that is what identifies them as equivalent.

Lab Indicators

Some courses will carry an alpha suffix indicating a lab. The alpha suffixes "L" and "C" are used as follows to indicate laboratories:

"L" means either (a) a course, the content of which is entirely laboratory or (b) the laboratory component of a lecture-lab sequence in which the lab is offered at a different time/place from the lecture course.

"C" means a combined lecture-lab course in which the lab is offered in conjunction with the lecture at the same time/same place.

Examples: Marine Biology	OCB _013	(lecture only)
	OCB _013L	(lab only)
Marine Biology with Lab	OCB _013C	(lecture & lab combined)

Therefore, OCB _013C is equivalent to OCB _013 plus OCB _013L.

Equivalency of Sequences

In certain cases, sequences of courses in a given discipline are equivalent rather than the individual courses which make up these sequences. (For example, MAC _132, _133, _134). In these cases the subject matter topics may not be taught in the same sequence, course by course, in several institutions; however, upon completion of the full sequence at any of the several institutions, students have completed substantively equivalent content. These sequences are clearly identified in the Course Equivalency Profiles.

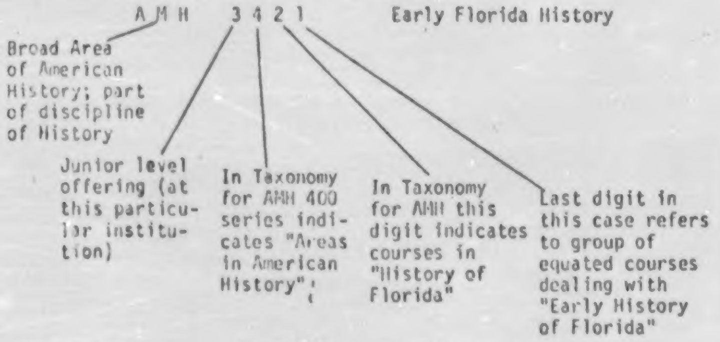
Explanation of Prefixes and Numbers

Prefixes and numbers in the course numbering system are not chosen at random; they are designed to describe course content in an organized fashion within a classification system developed for each subject matter area.

Generally, each of the major classifications in a discipline is represented by a three-alpha prefix. In some cases, one three-alpha prefix has been sufficient for the entire discipline. A discipline may use as many prefixes as necessary to accommodate its major classifications. The logic of the system allows it to be infinitely expandable with minimal disruption to existing numbers.

History, for example, has seven prefixes: AFH, African History; AMH, American History; ASH, Asian History; EUH, European History; HIS, History-General; LAH, Latin American History, and WOH, World History. All history courses in the state will carry one of these prefixes.

A more specific example is AMH 3421.


A M H 3 4 2 1 Early Florida History
Broad Area of American History; part of discipline of History
Junior level offering (at this particular institution)
In Taxonomy for AMH 400 series indicates "Areas in American History";
In Taxonomy for AMH this digit indicates courses in "History of Florida"
Last digit in this case refers to group of equated courses dealing with "Early History of Florida"

(Local titles are used for each particular course. The last three numbers are used to indicate equivalency.)

The number of prefixes is a function of the extent of the subclassifications of the given subject matter area.

When this work began there were 920 alpha prefixes in existence; with the new system there are now 370. As in most states there existed no uniformity in Florida's prefixes as indicated by the example below:

Discipline	Before	After
History	20	7
Sociology	24	3
Philosophy	23	4
Religion	17	1
Mathematics	50	10
English	39	6
Nutrition	38	4

Although it is true that a student majoring at one of the 38 participating institutions may have had only one alpha prefix for his major (e.g., HY-History) and now he will have seven, all prefixes in the same subject matter areas will be the same throughout these institutions.

A complete inventory of taxonomic listings, equivalent and unique courses, has been made available to each academic department of every institution in the state. Students, through their local advisors, should use this information in designing programs which will transfer smoothly.

Exceptions to the Rule For Equivalencies

The following are exceptions to the general rule for course equivalencies:

A. All graduate level courses (except those which the faculty and their reviewing colleagues have determined to be substantively equivalent with undergraduate courses) are not automatically transferable.

B. All numbers which have a second digit of 9 (Ex.: ART 2905) are "place keeper" numbers for such courses as directed independent study, thesis hours, etc. Courses with _900 numbers must be evaluated individually and are not automatically transferable.

C. All internships, practicums, clinical experiences and study abroad courses, whatever numbers they carry, are not automatically transferable.

D. Performance or studio courses in Art, Dance, Theatre, and Music are not automatically transferable but must be evaluated individually.

Authority For Acceptance of Equivalent Courses

The following amendment to Section 6A-10.24 of the Articulation Agreement was approved by the Community Colleges on Instructional Affairs, the Presidents Council, the Division of Community Colleges, the State University System Council of Vice Presidents for Academic Affairs, the Council of Presidents, and the Voard of Regents. It was adopted by the State Board of Education on March 7, 1978: "(15) In accordance with other provisions of Section 6A-10.24 of the articulation agreement, credit for any course or its equivalent, as judged by the appropriate faculty task force and published in the course numbering system, which can be used by a native student to satisfy degree requirements at a state university can also be used for the same purpose by a transfer student regardless of the institution in which the credit was earned.

Summary of Basic Terminology Used in the System

1. Discipline Classification
   (e.g., Philosophy)
   - Subclassification
     (e.g., History of Philosophy)
     - Sub-subclassification
       (e.g., History of Ancient & Medieval Philosophy)

2. Course Prefix

   All courses will be coded with a three alpha prefix.
   (e.g., PHI - Philosophy)

3. Course Number

   All courses will have a four number identifier.
   (e.g., 2100)

The first digit is left blank by the task forces. This digit will be assigned by each institution.

The second digit will be assigned by the discipline task force. The second digit designates the major subclassification of the discipline and any other subclassification considered essential.

The third and fourth digits will be assigned by the discipline task force. The third and fourth digits are used to indicate level of complexity of courses and to indicate sequencing of courses. The third and fourth digits range from _00 to _99 for each sub-subclassification.

Bases for the Development of the Discipline Taxonomies

There is considerable variation in the prefixing of courses, as indicated by the following excerpt from the report of the Task Force on Foreign and Biblical Languages (2600 courses), conducted by the University of Miami:

> The following is an example of the existing confusion which a student encounters when transferring into or within Florida's institutions of higher education. These are all introductory elementary Spanish courses which require no previous training (under the new system they would all be designated "SPA -01"):

	Pre Fix	No.	Institution		Pre Fix	No.	Institution
a)	SPA	027	(NEWC)	j)	SHA	0131	(BETC)
b)	SH	0100	(GCCC)	k)	SH	0133	(UF)
c)	SPA	0101	(UM)	l)	SH	0151	(VCC)
d)	SPA	0105	(MDCC)	m)	SH	0162	(SPJC)
e)	HU	0110	(ERAU)	n)	SPA	0201	(FMC)
f)	FLE	0111	(SLC)	o)	SPAN	0301	(FAU)
g)	LANG	0113	(SEBC)	p)	SPA	0451	(SSVP)
h)	CBS	0120	(SSF)	q)	SPA	1113	(PBAC)
i)	SP	0130	(MMC)	r)	SPA	4160	(OWJC)

This example provides some response to those faculty members and administrators who abhor ". . . a scramble of letters completely obscuring old identities . . .", and who maintain that -

> No academician could accept this, I'm sure. I see no way how students or out-of-state evaluators could make sense from catalogs or particularly transcripts.

Among registrars, it is common knowledge that prefixes are not a basis for determining subject matter, credit, or anything else.

Courses are variously prefixed as follows:

a. By specific subject matter (e.g., HIS - History)

b. By broad academic areas (e.g., SSC - Social Science)

c. By the department teaching the course at a given institution (e.g., ARE - Art Education - Art Department; EDA - Art Education - Education Department).

Further, prefix usage in a single institution may vary from two to four alpha characters (e.g., CY, MS, MKT, ECON). Again, some institutions in other states use no alpha characters at all in the course designation (e.g., 14:3521).

The approach of the course numbering system is elaborated in Section D. Essentially, it involves developing a taxonomy based on subject matter, not on departmental or divisional jurisdiction. The taxonomy is developed by faculty members in the discipline.

In other words, the objective is to develop a taxonomy of knowledge - which can be modified as necessary with new developments - and which is essentially independent of varying departmental jurisdictions. As evidenced in the public university sector in Florida, changes in departmental/divisional structures are occurring. These structural changes are accompanied by changes in prefixes. There is no evidence of student trauma.

If, in fact, educators believe that knowledge is not compartmentalized and that other disciplines supplement and complement their own, then there should be little objection to a major in Mass Communication, for example, having a collection of prefixes which are other than COM, MAC, or MC, etc.

List of Mass Communication Prefixes

COM - Communication
ADV - Advertising
FIL - Film
JOU - Journalism
MMC - Mass Media Communications
PUR - Public Relations
RTV - Radio/Television
VIC - Visual Communications

Further, the selection of a prefix does not imply a change in departmental jurisdiction for teaching a course in an institution.

For example, the following courses may be taught by either the particular discipline department or by the education department, depending on given institutional philosophies:

Prefix	Course
ARE	Art Education
MUE	Music Education
MAE	Mathematics Education

Another basis for the system developed is the need to be able to accommodate changes in courses and programs without disrupting the entire numbering system. The approach used is explained in Section D. One study indicates that yearly course additions, deletions, and other modifications have ranged from 3035 to 8402. This was based on the responses of 45 (66%) of the 68 institutions surveyed in Florida.

Common Course Designation and Numbering Principles

Prefixing Courses

Rule # 1. The prefix will contain three alpha characters.

Rule # 2. To establish the prefix in single word titles, use:

A. The first three alpha characters of the word (e.g., English, ENG).

B. Where conflicts exist, if the title is a compound work combination, use the first two letters of the first word and the first letter of the second word (e.g., Astrophysics, ASP; Biochemistry, BIC; Floriculture, FLC; Psychotherapy, PST).

C. If the first two options (A and B above) have been exhausted and a conflict still exists, use the first two letters and the last letter of the word to establish the three-letter prefix (e.g., English, ENH).

D. If the first three options have been exhausted and a conflict remains, use the first letter of the first syllable, the first letter of the second syllable and the last letter of the word (e.g., Engineering, EGG).

E. If another option is necessary, use the first letter in each of the first three syllables.

Rule # 3. In dual word titles, use:

A. The first two alpha characters in the first word and the first alpha character in the second word (e.g., Animal Husbandry, ANH).

B. If a duplication exists, use the first character of the first word and the first two characters of the second word (e.g., Animal Husbandry, AHU).

C. If a conflict still exists, use the first character of the first word and the first and last characters of the second word (e.g., Animal Husbandry, AHY).

D. If a need exists for another combination, use the first and last characters of the first word and the first character of the second word (e.g., Animal Husbandry, ALH).

E. If a further extension is necessary and one of the words in the title is a compound word combination, the compound may be treated as separate words to develop a suitable designation.

Rule # 4. In triple word titles, use:

A. The first alpha character in each word (e.g., East Asian Studies, EAS'

B. If another combination is necessary, use the alpha-combination which most clearly designates the discipline without duplicating another prefix.

Rule # 5. In multi-word titles, use:

A. The first alpha character of the first three words (e.g., Aviation Maintenance Management Studies, AMM).

B. The first alpha character of the three most prominent or root words (e.g., Classical Civilization and Literature, CCL).

Rule # 6. In education courses related to teaching other disciplines (e.g., Mathematics Education, Art Education), use

A separate prefix consisting of

(1) the first two letters of the generic prefix of the discipline (e.g., MA from MAT, Mathematics; AR from Art, Art; etc, and

(2) the letter E for education.

Hence MAE Mathematics Education
ARE Art Education

Rule # 7. Engineering courses are assigned the letter E as the first letter of the prefix:

Example: EAG Engineering, Agriculture
ECI Engineering, Civil

Rule # 8. The word "language" is added to distinguish from Chinese History, and Chinese Studies, but not incorporated in the prefix.

Examples: CHI = Chinese Language
CZE = Czech Language

The First Digit

It is clear that there are concerns related to institutional jurisdiction over courses; however, this is not a matter of responsibility for the task forces whose responsibility it is to develop a discipline format for prefixing and numbering equivalent courses.

There are varied reasons - including those asserted to be based on educational grounds - why given institutions may have decided to offer a particular course at one point in the program rather than at another; hence, the task forces will not assign the first digit, but leave this to each institution.

If, for example, the cognizant task force decides that certain Introduction to Statistics courses taught with the first digit "2" in a community college, the first digit "1" level in a private four year college, and with the first digit "3" in a public university are substantively equivalent, then this course might bear the designation and last three numberals STA _000. This clearly identifies all courses bearing this designation as equivalent. Hence, it is from a common course identification point of view immaterial whether the first numeral is 1, 2, 3, or 4, etc.

Institution	Course	Prefix	1st digit	2nd digit	3rd digit	4th digi
A	Intro. to Statistics	STA	____	0	0	
B	Intro. to Statistics	STA	____	0	0	0
C	Intro. to Statistics	STA	____	0	0	0

Thus far, task forces working on some 42,800 courses have found that variations in existing first digits occur from the "1" to "4" levels, 4, 5, & 6 levels, and from 2-5.

The Statewide Committee on Common Course Designation and Numbering had to consider the cumulative effects of the mechanical and psychological problems involved and reach a decision concerning instructions related to the application of the first digit.

There exists, however, another problem concerning the use of the first digit which apparently has either been overlooked or ignored.

The first digit has been interpreted as indicating "level of complexity"; however, it also indicates the way a given institutional department distributes its offerings over four or more years. The two uses are not necessarily matched.

For example, if institution A offers 20 courses in history; institution B, 30; and institution C, 40; even though 75% of these courses may be substantively equivalent, they are not distributed the same way in each institutional department. Consequently, these equivalent courses do not have the same first digit.

	Institution		
YR.	A	B	C
4			
3			
2			
1			

A = 20 courses
B = 30 courses
C = 40 courses

Further, as each institutional department expands its number of course offerings, it may redesignate 400 level courses to the 300 level, 300 to the 200, etc. Faculty members have indicated that although they do make such changes in the first digit, they do not change course content and they do not change their performance and evaluation criteria.

Upper division universities find a need to provide for their students - all transfers - courses which are ordinarily offered with the first digit "2" at other institutions. These upper division institutions offer these courses with the first digit "3."

Some graduate departments find a need to provide for their students courses which are ordinarily offered at the undergraduate level with the first digit "2" or "3." These departments offer those courses with the first digit "5."

In spite of these practices, there has been a tendency on the part of some universities to regard the first digit as sacrosanct. As a result, a student may be advised that since the course he took "down there" is at the 200 level, he must take it "up here" at the 300 level. The student may find that the course he is taking is substantively equivalent to the one he has already completed. This causes the student frustration, time, and money. On the other hand, if a university decides that the course is substantively equivalent or so close to being so that it would be irrational to require the student to take its course, enrollment in the university course is reduced.

Most of the equating problems occur between those courses with the first digits "2" and "3" and with the first digits "4" and "5."

There is another problem of some complexity in determining course equivalencies. The following example will illustrate:

Let us assume courses all bearing the same title "Shakespeare's Tragedies" are offered in institution A, B, C, D, and E, and during the years indicated. Each year also determines the first digit in the course number.

Yr.	Institution A
6	X
5	
4	X
3	
2	X
1	

	Institution			
Yr.	B	C	D	E
6				X
5			X	
4		X		
3	X			
2				
1				

Whatever first digits are used in institution A, it is clear that there are three distinct courses of varying complexity; hence, each course should be distinguished by different course numbers.

If institutions B, C, D, and E each offer one course, "Shakespeare's Tragedies", with the first digits 3, 4, 5, and 6 respectively, equating courses is a complex problem. The following questions represent several that may be raised:

> Are B's "3" level course and C's "4" level course substantively equivalent?
>
> Are C's "4" level course and D's "5" level courses substantively equivalent?
>
> Are D's "5" level course and E's "6" level course substantively equivalent?
>
> Are A's "2" level course and B's "3" level course substantively equivalent; or is A's "3" level course substantively equivalent to B's "3" level course?

These, of course, do not exhaust the questions that may be asked.

Given the dual significance of the first digit and the absence of any rational guidelines, it seems apparent that many highly subjective decisions are being made concerning course equivalences. Registrars are confronted with this problem constantly. Some students are victimized by the practices in the use and interpretation of the first digit.

Some faculty members state that they interview all incoming students and that they can ascertain the student's level of competency within five minutes. Many students, however, do not appear on campus until registration and, therefore, are not interviewed. It is also questionable whether a five minute re-examination of a course content taken over a year ago is a reasonable basis for deciding whether a student completed a course with content at a certain first digit level.

Some faculty members have stated that they personally know the course content and the quality of teaching of a certain faculty member or department at another institution. On this basis, they are willing to accept courses offere for transfer credit to be applied toward the major. They admit, however, that they probably have no knowledge as to when the faculty member has left that institution, or how many departmental changes have been made in staffing, or whether the content of the courses has changed, or whether graduate assistants are, in fact, teaching the courses.

Further, faculty members in the same department may differ as to the equivalency of the course offered for transfer. One public university student indicated that one faculty member advised him that a given course was not at the same level and, hence, had to be taken at another level. The student stated he lost the evaluation slip and returned for another copy. In the absence of the professor, another professor reviewed the matter and indicated on a new evaluation slip that the course was at the same level; and, hence, the student did not have to enroll in the course.

The Scope of the Articulation Problem

There are approximately 20,000 community college transfer students enrolled in public universities. In excess of 10,000 community college students transfer into universities each year. A recent study indicated approximately 1,300 transfers among universities.

- The March, 1972 "Report of the Senate Committee on Universities and Community Colleges" included the following remarks:

> We find need for more effective articulation between the junior colleges and universities.
>
> We find that students cannot transfer freely form one university to another within our State University System without loss of time or credits or both. Time spent in residence in one university does not satisfy the residency requirement of another university within the same system.
>
> . . . we sense an increased desire on the part of students to be involved in curriculum matters. . .
>
> We believe that internal allocations should reflect the purposes for which the funds were requested or that the budgetary formula should be changed so that when we appropriate funds, we will know for what specific purposes by discipline and by category they will be expended.

The Second Digit

This numeral will be utilized to designate the major subclassifications of the discipline and any other subclassifications considered essential.

For example: Introductory and entry level courses usually are not considered as major subclassifications of a discipline; however, provisions must be made for this category.

*Example

Philosphy (a possible taxonomy - partial)

1.	PHI 000 to 099	Introductory, entry level courses
2.	PHI 100 to 199	Logic courses
3.	PHI 200 to 299	History of Philosophy courses
4.	PHI 300 to 399	Epistemology courses
5.	PHI 400 to 499	Metaphysics courses
6.	PHI 500 to 599	Ethics courses
7.	PHI 600 to 699	Aesthetics courses
8.	PHI 700 to 799	Combinations (e.g., Epistemology & Metaphysics)
9.	PHI 800 to 899	Individual Philosophers
10.	PHI 900 to 999	Miscellaneous General Categories

* This is a simplistic example for the purpose of illustration. The actual taxonomy developed by the Task Force on Philosophy is more complex.

Variation: **Discipline with more than 10 subclassifications**

Given: (1) More than 10 subclassifications in the discipline

(2) Each subclassification has less than 100 courses when all subclassification courses are reduced to a common denominator.

Results: (1) When there are more than 10 subclassifications, an additional prefix must be added for each new group of 10 subclassifications (e.g., _000 - _999 to _900 - _999). The new prefix repeats the numeric range from _000 to _999. In the example below, the 11th subclassification, Philosophical Systems, becomes PHS _000 to _999 As will be illustrated later, this subclassification will be subclassified further (e.g., _000 to _099, _100 to _199, -200 to _299, etc.).

(2) The generic prefix of the discipline - PHI in this example - is always retained for the 10 subclassification "Miscellaneous General Categories," in order to standardize prefixes and numbers for those categories which cross all disciplines (e.g., theses, dissertations, preliminaries, comprehensives, and defenses). The 11th, 12th, etc., subclassifications assume the new prefixes.

Number of Subclassifications	Prefix	Number	General Title
1.	PHI	_000 _099	Introductory, entry level courses
2.	PHI	_100 _199	Logic
3.	PHI	_200 _299	History of Philosophy
4.	PHI	_300 _399	Epistemology
5.	PHI	_400 _499	Metaphysics
6.	PHI	_500 _599	Ethics
7.	PHI	_600 _699	Aesthetics
8.	PHI	_700 _799	Combinations (e.g., Epistemology & Metaphysics)
9.	PHI	_800 _899	Individual Philosophers
10.	PHI	_900 _999	Miscellaneous General Categories
11.	PHS	_000 _999	Comparative Philosophical Systems

The third and fourth digits

The third and fourth digits are used for indicating level of complexity and for sequencing.

For example, suppose that the Task Force on Philosophy finds that three institutions offer a course titled Introduction to Logic, but that these courses vary significantly in content. If the task force takes the position that courses need to be distinguished, they may so indicate as follows:

PHI 100-199 Logic Courses

Institution	Course Title	Content	Prefix	Last three digits
A	Intro. to Logic	Informal fallacies Aristotelian	PHI	_100
B	Intro. to Logic	Informal fallacies Aristotelian Propositional	PHI	_101
C	Intro. to Logic	Informal fallacies Aristotelian Propositional Functional	PHI	_102

This approach permits courses with substantive differences to be distinguished substantive differences that would otherwise be obscured by a common course title. The three logic courses above are number 100, 101 and 102, in order of increasing complexity.

Since each series (i.e., 000 - 099, 100 - 199, etc.) is further subdivided into groups of ten, disciplines that decide to make distinctions among these entry level courses might consider the following structure:

_000 _009	Survey of . . .
_010 _019	Introduction to . . .
_020 _029	Fundamentals of . . ., Principles of . . .
_030 _039	Problems of . . .

NUMBERING COURSES, SPECIFIC

Introductory, Entry Level Courses

Prefixes

Always assign the generic prefix to the introductory, entry level courses to the broad discipline area:

Example: Philosophy: PHI

This subclassification is not intended for the introductory courses in the other subclassifications.

Example: Introduction to Logic belongs in the subclassification "Logic," PHI - _100 to 199, not in subclassification "Introductory, Entry Level Courses," PHI _000 to _999.

Numbers

Undergraduate Introductory, Entry Level Courses to the Broad Discipline Area

The series _000 to _099 is to be used for the "Introductory, Entry Level Courses." These courses currently may incorporate in their titles such terms as "Introduction to . . .," "Survey of . . . ," "Problems of . . . ," "Fundamentals of . . . ,""Principles of . . . ," etc. Some discipline departments make strict distinctions among these terms; others tend to use them more loosely and interchangeably.

Since each series (i.e., 000 - 099, 100 - 199, etc.) is further subdivided into groups of ten, disciplines that decide to make distinctions among these entry level courses might consider the following structure:

_000 _009	Survey of . . .
_010 _019	Introduction to . . .
_020 _029	Fundamentals of . . ., Principles of . . .
_030 _039	Problems of . . .

Graduate Introductory, Entry Level Courses To The Broad Discipline Area

In some instances, disciplines may offer introductory, entry level courses to the broad discipline area for graduate students who have come from other disciplines.

These introductory, entry level courses for graduate students are incorporated in the subclassification series _000 to 099; however, they are distinguished from introductory, entry level courses for undergraduates by assignment of the number series indicated below:

Undergraduate Introductory, Entry Level Courses	Graduate Introductory, Entry Level Courses
_000- 009	_050- 059
_010- 019	_060- 069
_020- 029	_070- 079
_030- 039	_080- 089
_040- 049	_090- 099

The example above assumes that the content of the introductory, entry level courses for graduate students is, in fact, substantively different from the content of the introductory, entry level courses for undergraduate students. It will be recalled that a major function of the discipline task forces is to identify courses that are substantively equivalent regardless of existing prefixes, numbers, or type of institution (i.e., community-junior college or university). Hence, if given courses are determined to be substantively equivalent, they should be assigned the same prefix and number.

For example, let us assume that a given course titled "Statistical Applications in Education," which is currently numbered at the 500 level at a given institution, is determined to be substantively equivalent to another course offered at the 300 level at the same or another institution. These courses should be assigned the same prefix and number.

At institution "A," the two statistics courses determined to be equivalent mught be assigned as follows:

Statistical Applications in Education STA _010

Again, if these courses are determined to be substantively equivalent, but the institution and/or department wishes to separate the graduate from the undergraduate students, this may be accomplished by assigning them to different section of STA _010.

Further, since each institution will assign the first digit, institution "A" may differentiate the students for whom the two substantively equivalent courses are offered by designating these courses as follows:

STA 2010 The last three digits determine
STA 5010 course equivalency

Assignment of Numbers Within A Subclassification

Each subclassification of a discipline contains 100 possibilities. In the philosophy example given, for instance, the subclassification "History of Philosophy" is designated and numbered as follows:

PHI _200 to _299

Prohibition Against Including More Than One Topic Within One Subclassification Series

Do not include more than one topic within one subclassification series:

Example: PHI _200 to 299 may not include courses other than those in History of Philosophy

The Assignment of Numbers Within Sub-Subclassification

Each subclassification may, in turn, be subdivided into sub-subclassifications as follows:

Subclassification	Prefix Number Series	Sub-subclassification Titles
History of Philosophy	PHI _200 209	History of Ancient & Medieval Philosophy (_to_)
	PHI _210 219	History of Ancient Philosophy
	PHI _220 229	History of Medieval Philosophy
	PHI _230 239	History of Modern Philosophy
	PHI _240 249	History of Eastern Philosophy
	PHI _250-259	History of Western Philosophy
	PHI _260-269	History of Philosophical Systems
	PHI _270-279	To be assigned
	PHI _280-289	To be assigned
	PHI _290-299	To be assigned

In the example above, there may be assigned as many as 10 course titles within each sub-subclassification.

Example:

Prefix	Title	Period
PHI _200	History of Ancient & Medieval Philosophy	(A to F)
_201	" " " " " "	(A to C)
_202	" " " " " "	(D to F)
_203	" " " " " "	(A to B)
_204	" " " " " "	(C to D)
_205	" " " " " "	(E to F)
_206	" " " " " "	(G to H)
_207	(to be assigned)	
_208	(to be assigned)	
_209	(to be assigned)	

In the example above, PHI _200 to _209 represents the sub-subclassification History of Ancient and Medieval Philosophy. In the example above, the discipline task force reviewed all institutional offerings in History of Ancient and Medieval Philosoph in community colleges and universities and decided that they were equated as follows:

Institutions	Prefix	Number	Title	Period
M, N, O, P, Q	PHI	_200	History of Ancient & Medieval Philosophy	(A to F)
R, S, T	PHI	_201	" " " " " "	(A to C)
R, S, T	PHI	_202	" " " " " "	(D to F)
U	PHI	_203	" " " " " "	(A to B)
U	PHI	_204	" " " " " "	(C to D)
U	PHI	_205	" " " " " "	(E to F)
	PHI	_206	" " " " " "	
	PHI	_207	(to be assigned)	
	PHI	_208	(to be assigned)	
	PHI	_209	(to be assigned)	

In the previous example, five institutions offer a single course in History of Ancient Medieval Philosophy encompassing the period (A to F); three institutions offer two courses encompassing the period (A to F); and one institution offers three courses encompassing the period (A to F).

It will be noted that the equivalent courses have been ordered from the least to the most intensive and/or complex. Institutions M, N, O, P, & Q cover in one term the same periods covered by institutions R, S, & T in two terms; and the same period covered by institution U in three terms.

Hence, in the previous example, the discipline format for the sub-subclassification, History of Ancient and Medieval Philosophy, will use these prefixes and numbers to designate and number these courses. This basic procedure is followed until the discipline format for all other sub-subclassifications has been completed.

Spacing Course Numbers Within a Sub-Subclassification

The following procedure is intended to provide a general guideline for the spacing of course numbers within a sub-subclassification.

In each sub-subclassification, the fourth and last digit in the course number ranges from 0 to 9; hence, there is provision for ten distinct courses in the sub-subclassification.

Example: History of Ancient Philosophy: PHI 210 to 219

PHI - 210
211
212
213
214
215
216
217
218
219

Courses are numbered from the least complex or extensive to the most complex; that is, from the introductory, entry level courses in the sub-subclassification to the graduate level courses in the sub-subclassification.

If there were, in fact, ten distinct courses in the History of Ancient Philosophy (PHI 210 to 219) all ten numbers in the sub-subclassification would be assigned. However, suppose that there were only two distinct courses in the History of Ancient Philosophy: one of which the task force determines is generally offered the second year of the undergraduate level and the other, a seminar, which is offered at the doctoral level.

As a general guideline, in this type of situation, assume that the fourth and last digit indicate the levels indicated below:

Fourth & last digit in Sub-Subclassification	Assumed level Guideline
_ _ 0	1st yr: Introductory, Entry level course
_ _ 1	1st yr: Undergraduate level
_ _ 2	2nd yr: Undergraduate level
_ _ 3	3rd yr: Undergraduate level
_ _ 4	4th yr: Undergraduate level
_ _ 5	Advanced Senior or Masters level
_ _ 6	Advanced Masters or Specialist level
_ _ 7	Advanced Masters or Specialist level
_ _ 8	Doctoral level
_ _ 9	Doctoral level

Hence, the two courses in History of Ancient Philosophy, one generally offered the second year of the undergraduate level and the second at the doctoral level, could be assigned course numbers as follows:

336

History of Ancient Philosophy: PHI 210 to 219

PHI 210	
211	
212	History of Ancient Philosophy
213	
214	
215	
216	
217	
218	Seminar: History of Ancient Philosophy
219	

In the event other distinct courses were developed in the History of Ancient Philosophy at any of the other levels indicated in the guideline, they could be numbered accordingly.

It is emphasized that this is a general guideline for spacing course numbers within a sub-subclassification.

It will be noted that the undergraduate courses range from the fourth digit 0 to 4 and that the graduate courses range from 5 to 9. In the event the task force determined that there existed one distinct History of Ancient Philosophy course at the second year level, two distinct courses at the masters level, and three at the doctoral level, the numbering might appear as follows:

PHI 210
211
212 History of Ancient Philosophy (___ to ___)
213
214
215 History of Ancient Philosophy (___ to ___)
216 History of Ancient Philosophy (___ to ___)
217
218 Seminar: History of Ancient Philosophy (___ to ___)
219 Seminar: History of Ancient Philosophy (___ to ___)

Assignment of Courses in Sub-subclassifications when Number of Distinct Courses Exceeds Ten

As pointed out, each subclassification of a discipline (e.g., History of Philosophy) provides a series of 100 numbers (e.g., 200 - 299). These series of 100 numbers may be divided further into sub-subclassifications (e.g., History of Ancient and Medieval Philosophy) which provide 10 numbers (e.g., 200 - 209).

It is believed that the occurrence of more than 100 distinguishable courses in a subclassification (e.g., History of Philosophy) is possible, but not probable. However, it is highly probable in some disciplines that the number of distinguishable courses in a sub-subclassification (e.g., History of Ancient and Medieval Philosophy - series 200 - 209) might exceed ten.

The two alternatives selected for coping with this circumstance are as follows:

Alternative I

Given: a. The sub-subclassification History of Ancient and Medieval Philosophy (_200 - _209) is found to have 14 distinguishable courses after all courses in this sub-subclassification have been equated.

b. There are only six sub-subclassifications assigned in the subclassification History of Philosophy; hence, there are three series of sub-subclassifications open for assignment.

c. It appears improbable that all three of the remaining series of ten numbers will be assigned.

Solution:

Assign the 14 distinguishable courses in the sub-subclassification History of Ancient and Medieval Pholosophy to the series _200 to _209 and to the series _210 to _219.

Example:

Prefix	Number	Title	Period
PHI	_200	History of Ancient & Medieval Philosophy	(A to I)
	_201	" " " " " "	(A to C)
	_202	" " " " " "	(D to F)
	_203	" " " " " "	(G to I)
	_204	" " " " " "	(A to B)
	_205	" " " " " "	(C to D)
	_206	" " " " " "	(E to F)
	_207	" " " " " "	(G to I)
	_208	" " " " " "	(J to R)
	_209	" " " " " "	(J to L)
	_210	" " " " " "	(M to O)
	_211	" " " " " "	(P to R)
	_212	" " " " " "	(S to U)
	_213	" " " " " "	(V to X)
	_214	To be assigned	
	_215	" " "	
	_216	" " "	
	_217	" " "	
	_218	" " "	
	_219	" " "	

In the example above, there remain six additional numbers to be assigned (_214 to _219) in the event additonal courses in History of Ancient and Medieval Philosophy should be developed.

Alternative II

Given: a. The sub-subclassification History of Ancient and Medieval Philosophy (_200 to _209) is found to have 14 distinguishable courses after all courses in the sub-subclassification have been equated.

b. All of the remaining nine sub-subclassifications (i.e., _210 to _219, through _290 to _299) are assigned.

Solution:

a. Assign a new prefix for the entire subclassification History of Philosophy (e.g., HPH) which will encompass its own series of 1000 numbers; that is, _000 - _099, _100 - _199, _200 - _299, etc.

Example:

Original Format		New Format	
PHI _200-209	History of Ancient & Medieval Philosophy Courses (10 distinguishable courses)	HPH _000-099	History of Ancient & Medieval Philosophy Courses (100 distinguishable courses)
PHI _210-219	History of Ancient Philosophy Courses (10 distinguishable courses)	HPH _100-199	History of Ancient Philosophy Courses (100 distinguishable courses)
PHI _220-229	History of Medieval Philosophy Courses (10 distinguishable courses)	HPH _200-299	History of Medieval Philosophy Courses (100 distinguishable courses)
PHI _230-239	History of Modern Philosophy Courses (10 distinguishable courses)	HPH _300-399	History of Modern Philosophy Courses (100 distinguishable courses)
PHI _240-249	History of Eastern Philosophy Courses (10 distinguishable courses)	HPH _400-499	History of Eastern Philosophy Courses (100 distinguishable courses)
PHI _250-259	History of Western Philosophy Courses (10 distinguishable courses)	HPH _500-599	History of Western Philosophy Courses (100 distinguishable courses)
PHI _260-269	History of Philosophical Systems Courses (10 distinguishable courses)	HPH _600-699	History of Philosophical Systems Courses (100 distinguishable courses)
PHI _270-279	To be assigned	HPH _700-799	To be assigned
PHI _280-239	To be assigned	HPH _800-899	To be assigned
PHI _290-299	To be assigned	HPH _900-999	To be assigned

In the example above, History of Philosophy, PHI _200 - _299, has become HPH 000 - _999. The sub-subclassification History of Ancient and Medieval Philosophy, PHI _200 - _209, has become HPH _000 - _099. Hence, the possibilities for assigning numbers to History of Ancient and Medieval Philosophy have expanded from 10 to 100. This holds for every sub-subclassification. (Note: If PHI _200 - 209 becomes HPH 000 - _999, do not reassign PHI _200 - _209. Leave it unassigned. The reason for this is that this system is being designed as a potential regional and national model. Other states may find that PHI _200 to _299 will accommodate their Philosophy of History courses.)

Caution Required In Selecting Alternative

The following should be considered by the task force when it is confronted with the need to decide whether to expand a sub-subclassification (e.g., History of Ancient & Medieval Philosophy, PHI _ 200 - _209) into the next series of ten numbers (i.e., _210 - _219), or to expand the entire subclassification History of Philosophy, HPH _000 - _999, thus providing 100 possibilities rather than 19 for each sub-subclassification (e.g., HPH _000 - _999, rather than PHI _200 - _209):

a. Are there unassigned series of ten numbers in the subclassification (e.g., _200 - _209, _210 - _219, etc.) which are not likely to be needed for other subclassification titles as the discipline expands?

b. In the light of the probable future expansions within the subclassifications of the discipline and/or the number of distinguishable courses within each subclassification, would it be preferable to go directly to a new prefix and 1000 number range (e.g., HPH _000 - _999) in order to avoid having to make such a change at a later date?

In arriving at a decision, the trends of the discipline, the probability of expanded offerings, and the probability that course numbers will have to be changed in the entire sub-subclassification will all have to be considered. The discipline task force will need to weigh carefully the probable consequences of the strong tendency to retain the generic prefix (e.g., Philosophy, PHI) when these factors tend to indicate that the assignment of a new prefix would be the wiser choice.

EQUIVALENCY OF COURSES

A major but not exclusive objective of the Statewide Course Numbering System has been to provide a complete and accurate inventory of courses and an identification system for courses determined to be substantively equivalent and unique.

Since February, 1973 - a period of 3½ years - 101 discipline task forces have been organized with over 600 faculty participants from public and private universities and community colleges. The work of these faculty task forces has been submitted for as many as three institutional reviews by colleagues in the respective disciplines. Hence, the final discipline formats reflect the combined efforts of faculty discipline task forces and their institutional colleagues. No state agency was involved in making these determinations as to comparability or uniqueness.

1976 legislative language states:

> Fall term 1976-77: Effective date for automatic transferability of all community colleges and university undergraduate courses to the extent that each course numbering discipline format has been finalized, except as otherwise specified by the statewide course numbering policy council.
>
> March 31, 1977: Completion of course equivalency profiles for all undergraduate courses identified as undergraduate and those courses identified as both undergraduate and graduate by various institutions.

General Role for Course Equivalencies

All undergraduate courses bearing the same alpha prefix and last three numerics and alpha suffix represent substantive equivalency of courses.

```
1 2 3   1 2 3 4   1

  3        4      1
alphas numerics  alpha
                 suffix
```

In some instances, faculty task forces identified as substantively equivalent undergraduate and graduate courses; that is, courses identified by institutions with existing institutional first numerics of 4 (400 level) and with existing institutional first numerics of 5 or 6 (500 or 600 level).

Exceptions to the General Rule for Course Equivalencies

The following are exceptions to the general rule for course equivalencies:

a. All courses in the 900-999 series. These are "place keeper" numbers. All courses in this series must be evaluated individually.

b. Graduate level courses (except those graduate courses that the faculty and their reviewing colleagues have determined to be substantively equivalent with undergraduate courses.)

For example: If two Introduction to Statistics courses have been determined to be substantively equivalent but one is numbered as an undergraduate course and one is numbered as a graduate course, then the student may not be required to repeat the same course numbered by the receiving institution as a graduate course.

c. Performance Courses: Art, Theatre, Dance, Music

Although there is relatively little difficulty determining equivalencies among such courses titled History of Art, History of Music, History of the Theatre, and History of Dance, there is some difficulty in equating courses in painting, in acting, in dancing, and in vocal and instrumental music.

There is a precedent of long standing among the performing arts for evaluating each student's ability and level of development on an individual basis. The faculty of the receiving institution tends to assess carefully the level of competence by examining the student's portfolio or by holding an audition or recital. The assessment by the faculty in each case determines the additional work in technique, etc., which may be required.

The necessity for such assessment lies in the dual nature of performance areas. Not only must a student be evaluated on his mastery of technical methods--a task which can be accomplished with relative ease--but he must also be evaluated on the extent and level of development of his talent, that which ultimately separates the non-artist from the artist, and this can be achieved

STATEWIDE COURSE NUMBERING SYSTEM

RELATIONSHIP OF SYSTEM PREFIXES & NUMBERS
TO
INSTITUTIONAL & DEPARTMENTAL ORGANIZATIONAL STRUCTURE
JURISDICTION OF COURSES & ALLOCATION OF FTE's

The Statewide Course Numbering System is designed to provide a statewide inventory of courses based on subject matter.

The prefixes assigned to courses are not intended to reflect the existing status of the following:

a. Institutional organizational structure;

b. Departmental jurisdiction of courses;

c. FTE unit allocations.

All of these remain the prerogative of each institution.

In lieu of the traditional alpha prefix as an indicator of institutional organizational structure, departmental jurisdiction of courses, and FTE unit allocation, each institution will assign its own coding which is external to prefixes and numbers.

For example, history courses have several prefixes. A coding system external to prefixes and numbers can be used to indicate departmental jurisdiction.

Departmental Coding	History Department Courses
AB	HIS General History
AB	AFH African History
AB	AMH American History
AB	ASH Asian History
AB	EUH European History
AB	LAH Latin American History
AB	WOH World History

Now, assume that there is an institutional decision to have the Asian Studies Department responsible for the teaching of all Asian History courses. The Asian History course prefixes and numbers remain the same; however, the departmental coding might change as follows:

Before Departmental Coding	Course	After Departmental Coding
AB (History Department)	ASH	CD (Asian Studies Department)

In like manner, the prefix for biochemistry will remain BCH even though departmental jurisdiction for this subject matter may be assigned to a department of chemistry in one institution and to a department of biology in another institution. If jurisdiction for a course changes, the departmental code will change, not the prefix.

DIRECTORY OF PREFIXES (BY SUBJECT MATTER AREA)

Accounting (008)

ACC	Accounting

Adult Education (085)

ADE	Adult Education

Aeronautical Science (128)

*ASC	Aeronautical Science
ATF	Aviation Tech Flight
ATM	Aviation Tech Maintenance
ATT	Aviation Tech Theory
AVM	Aviation Management

African Studies (105)

AFS	African Studies

See also: History, Economics, Humanities, Political Science, Sociology

Agriculture (001)

AEB	Agricultural Economics & Business
AEE	Agriculture & Extension Education
AGE	Agricultural Engineering
*AGG	Agriculture - General
AGR	Agronomy
ANS	Animal Science
ASG	Animal Science - General
ATE	Animal Science Technology
DAS	Dairy Science
ENY	Entomology
FNR	Forestry & Natural Resources
FOR	Forestry
FRC	Fruit Crops
GCO	Golf Course Operations
HOS	Horticultural Sciences
MAG	Mechanized Agriculture

(Continued on next Column)

Agriculture (Cont.) (001)

ORH	Ornamental Horticulture
PAZ	Parks and Zoos
PLP	Plant Pathology
PLS	Plant Science
PMA	Pest Management
PSE	Poultry Science
SOS	Soil Science
VEC	Vegetable Crops
VES	Veterinary Science
WIS	Wildlife Science

See also: Economics, Management, Engineering Technology, Landscape Architecture, Biological Science, Veterinary Medicine, Nutrition

American & Afro-American Studies (005)

AFA	Afro American Studies
AMS	American Studies

See also: Social Sciences Interdisciplinary

Anthropology (003)

ANT	Anthropology
LIN	Linguistics (127)

See also: Sociology

Applied Biology (151)

APB	Applied Biology

Arabic Language & Literature (121)

ARA	Arabic Language

Architecture (004)

*ARC	Architecture
LAA	Landscape Architecture

Art (006)

ARE	Art Education
ARH	Art History
*ART	Art
ARV	Art, Vocational

Asian Studies (106)

ASN	Asian Studies

See also: Economics, History, Humanities

Banking (130)

BAN	Banking

Behavior Studies (154)

BES	Behavior Studies

See also: Religion, Psychology, Sociology, Social Work (Human Services, Mental Health Technology)

Biological Sciences (007)

APB	Applied Biology (151)
BCH	Biochemistry (Biophysics) (103)
BOT	Botany
*BSC	Introductory Biological Science
MCB	Microbiology
PCB	Process (Cell & Molecular) Biology
ZOO	Zoology

Biochemistry (103)

BCH	Biochemistry (Biophysics)

Building Construction (087)

BCN	Building Construction

See also: Architecture, Engineering Tech

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*Generic prefix of the subject matter area where such things as Comprehensive Examinations, Masters, Thesis, and Dissertations have been placed.

Business Education (149)

BTE	Business Teacher Education
DEC	Distributive Education Coordinator

Business Law (112)

BUL	Business Law

Cardiopulmonary Technology (120)

CPT	Cardiopulmonary Technology
APB	Applied Biology (151)

Chemistry (065)

*CHM	Chemistry
BCH	Biochemistry (103)
CHS	Chemistry - Specialized

Classical Languages & Literature (146)

*CLT	Classical Literature in Translation
GRE	Greek (Language Study)
GRW	Greek Literature (Writings)
LAT	Latin (Language Study)
LNW	Latin Literature (Writings)

Classical & Ancient Studies (104)

CLA	Classical & Ancient Studies

See also: History, Classical Languages & Literature

Communications (098)

COM	Communication

Comparative Policy Studies (Multi-National) (108)

CPS	Comparative Policy Studies

Computer Science (010)

CAP	Computer Applications
CDA	Computer Design/Architecture
*CIS	Computer & Information Systems
COC	Computer Concepts
COP	Computer Programming
COT	Computer Theory
CNM	Computational/Numerical Methods
CRM	Computer Resources/Managment

See also: Engineering II, Engineering IV, Statistics, Mathematics

Cooperative Education (100)

COE	Cooperative Education

Criminology (011)

*CCJ	Criminology & Criminal Justice
CJD	Criminal Justice Development
CJT	Criminal Justice Technology

See also: Sociology

Dance (012)

DAA	Dance Activities
DAE	Dance Education
*DAN	Dance

See also: Theatre, Physical Education

Dental Assisting (013)

*DEA	Dental Assisting
DES	Dental Support (119)

See also: Nutrition

Dental Hygiene (014)

*DEH	Dental Hygiene
DES	Dental Support (119)

See also: Nutrition

Dental Laboratory Technology (015)

DTE	Dental Laboratory Technology

Dental Support (119)

DES	Dental Support

Dentistry (016)

DEN	Dentistry

Economics (018)

*ECO	Economics
ECP	Economic Problems & Policy
ECS	Economic Systems & Development

Education: Administration & Supervision (019)

EDS	Education Supervision
*EDA	Education Administration

Education: Exceptional Child (020)

ECD	Exceptional Child Education - Culturally
EED	Education: Emotional Disorders
*EEX	Education: Exceptional Child, Core Competencies
EGI	Education: Gifted
EHD	Education: Hard of Hearing & Deaf
ELD	Education: Specific Learning Disabilities
EMR	Education: Mental Retardation
EPH	Education: Physical & Multiple Handicapped
EVI	Education: Visually Impaired, Blind

Education: Foundations (021)

EDF	Education: Foundations

See also: Psychology, Sociology

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*Generic prefix of the subject matter area where such things as Comprehensive Examinations, Masters, Thesis, and Dissertations have been placed.

Education: Systems (024)

EDE	Education: Elementary
*EDG	Education: General
EDH	Education: Higher
EDM	Education: Middle School
EEC	Education: Early Childhood
EME	Education: Technology & Media
ESE	Education: Secondary

Education: Vocational & Industrial Arts (025)

EIA	Education: Industrial Arts
EIV	Education: Industrial/Vocational
EVT	Education: Vocational, Technical

Electroencephalographic Technology (026)

ETN	Electroencephalographic Technology

Emergency Medical Services (166)

EMS	Emergency Medical Services

Engineering I (Civil, Geological, Environmental) (028)

CES	Civil Engineering Structures
*ECI	Engineering, Civil
EES	Environmental Engineering Science
ENV	Engineering, Environmental
TTE	Transportation & Traffic Engineering

Engineering II (Electrical, Electronics, Communications (029)

*EEL	Engineering, Electrical
ELR	Electrical Lab & Related Areas

See also: Computer Science

Engineering III (Aero, Chem, Indus, Mech, Nuc.)(030)

AES	Aeronautical Systems
EAS	Engineering: Aerospace
*ECH	Engineering: Aerospace
EIN	Engineering: Industrial
EMC	Engineering: Mechanical & Chemical
EML	Engineering: Mechanical
ENU	Engineering: Nuclear
ESI	Engineering Systems: Industrial

Engineering/Engineering Tech: Interface (157)

SUR	Surveying & Related Areas

Engineering IV (General, Materials, Mechanics)(031)

ECM	Engineering: Computer Mathematics
EGM	Engineering: Mechanics
*EGN	Engineering: General
EMA	Materials Engineering

See also: Computer Science

Engineering Technologies (032)

ETC	Engineering Tech: Civil
ETD	Engineering Tech: Drafting
ETE	Engineering Tech: Electrical
*ETG	Engineering Tech: General
ETI	Engineering Tech: Industrial
ETM	Engineering Tech: Mechanical
EVS	Environmental Science

English As A Second Language (129)

ESL	English as a Second Language
TSL	Teaching English as a Second Language

English Language & Literature (163)

AML	American Literature
CRW	Creative Writing
ENC	English Composition
*ENG	English - General
ENL	English Literature
LIN	Linguistics (127)
LIT	Literatures

See also: Foreign & Biblical Languages (In translation), Language Arts & English Education, Humanities

European Studies (107)

EUS	European Studies

Environmental Studies (152)

EVR	Environmental Studies

Finance (131)

FIN	Finance

Fire Science (132)

FFP	Fire Fighting & Protection

Foreign & Biblical Languages & Lit. (053)

*FOL	Foreign & Biblical Language (Comparative)
FOT	Foreign & Biblical Literature (In translation)
FOW	Foreign & Biblical Literature (Comparative)
LIN	Linguistics (127)

See also: Individual Languages and Language groups

Foreign Language Education (148)

FLE	Foreign Language Education

French Language & Literature (133)

*FRE	French Language
FRT	French Literature in Translation
FRW	French Literature (Writings)

See also: English Language & Literature

General Business (155)

GEB	General Business

See also: Accounting, Banking, Finance, Business Law, Quantitative Methods, Hotel, Restaurant & Tourism, Management, Marketing, Real Estate, Risk Management & Insurance, Secretarial Science and Transportation

Funeral Services (054)

FSE	Funeral Services

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*Generic prefix of the subject matter area where such things as Comprehensive Examinations, Masters Thesis, and Dissertations have been placed

Geography (034)

GEA	Geography: Regional Areas
*GEO	Geography: Systematic

See also: Meterology, Oceanography, Urban & Regional Planning

Geology (066)

GLY	Geology

Germanic & Germanic Language & Lit. (134)

*GER	German & Germanic Language
GET	German Literature in Translation
GEW	German Literature (Writings)
ICW	Icelandic Literature
SCA	Scandinavian Languages

Gerontology (035)

GEY	Gerontology

Graphic Arts (160)

GRA	Graphic Arts

Guidance & Counseling (022)

EGC	Education: Guidance & Counseling

Health Care Administration (084)

HCA	Health Care Administration

Health Education & Safety (135)

HES	Health Education and Safety

See also: Physical Educaiton, Allied Health

Health, Leisure, Physical Education (101) (Combinations)

HLP	Health, Leisure, Physical Education

See also: Agriculture, Leisure, Health, Education & Safety, Physical Educaiton

Health Science (150)

HSC	Health Science

Hebrew Language & Lit. (122)

HEB	Hebrew

History (037)

AFH	African History
AMH	American History
ASH	Asian History
EUH	European History
*HIS	History - General
LAH	Latin American History
WOH	World History

See also: Various Area Studies

Home Economics (038)

CHD	Child Development
COA	Consumer Affairs
CTE	Clothing & Textiles
FAD	Familty Development
HEE	Home Economics Education
HHD	Housing and Home Design
HME	Home Management & Equipment
*HOE	Home Economics - General

(The Following are in Nutrition)

DIE	Dietetics (141)
FOS	Food Science (141)
FSS	Food Service Systems (141)
HUN	Human Nutrition (141)

See also: Early Childhood Education, Psychology

Hotel & Restaurant Management (117)

HFT	Hotel & Restaurant

(The Following are in Nutrition)

DIE	Dietetics (141)
FOS	Food Science (141)
FSS	Food Service Systems (141)
HUN	Human Nutrition (141)

Humanities (136)

HUM	Humanities

See also: Music, Art, Religion, Philosophy, English

Human Services (162)

HUS	Human Services

See also: Mental Health Technology

Interdisciplinary Science (113)

GFD	Geophysical Fluid Dynamics
*ISC	Interdisciplinary Science - Natural
MOB	Molecular Biophysics

Interdisciplinary Studies (040)

IDS	Interdisciplinary Studies

See also: Student Development Women's Studies

Interior Design (086)

IND	Interior Design

Italian Language & Literature (137)

*ITA	Italian Language
ITT	Italian Literature in Translation
ITW	Italian Literature (Writings)

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*Generic prefix of the subject matter area where such things as Comprehensive Examinations, Masters Thesis, and Dissertations have been placed.

Language Arts and English Education (093)

*LAE	Language Arts & English Education
RED	Reading Education

See also: English Language & Literature, Reading

Latin American Studies (116)

LAS	Latin American Studies

See also: History, Anthropology, Sociology

Law (041)

LAW	Law

Legal Assistant (138)

LEA	Legal Assistant

Leisure (Recreation) (096)

LEI	Leisure

See also: Physical Education

Library Science (042)

LIS	Library Science

Linguistics (127)

LIN	Linguistics

See also: Anthropology, English Language and Literature, Individual Foreign Languages, Speech Communication, Speech Pathology & Audiology

Management (139)

MAN	Management

MARINE TECHNOLOGY (141)

Marketing (140)

*MAR	Marketing
MKA	Marketing Applications

Mass Communication (043)

ADV	Advertising
FIL	Fil
JOU	Journalism
*MMC	Mass Media Communication
PUR	Public Relations
RTV	Radio - Television
VIC	Visual Communication
COM	Communication (098)

Mathematics (044)

MAA	Mathematics: Analysis
MAC	Mathematics: Calculus & Precalculus
MAD	Mathematics: Discrete
MAP	Mathematics: Applied
MAS	Mathematics: Algebraic Structures
*MAT	Mathematics: General
MGF	Mathematics: General & Finite
MHF	Mathematics: History & Foundations
MTB	Mathematics: Technical & Business
MTG	Mathematics: Topology & Geometry

See also: Statistics, Engineering IV

Mathematics Education (115)

MAE	Mathematics Education

Medical Assisting Technology (045)

MEA	Medical Assisting Technology

Medical Lab. Technology/Medical Tech (049)

MLS	Medical Laboratory Science

Medical Records (048)

MRE	Medical Records

Medicine (050)

BCC	Basic Clinical Clerkship
*BMS	Basic Medical Sciences
GMS	Graduate Medical Sciences
MEL	Medicine Electives

Mental Health Technology (051)

MHT	Mental Health Technology

Mental Retardation (090)

MER	Mental Retardation

Meteorology (067)

MET	Meteorology

Military Science (052)

AFR	Aerospace Studies
MIS	Military Science
NSC	Naval Science

See also: History

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*Generic prefix of the subject matter area where such things as Comprehensive Examinations, Masters Thesis, and Dissertations have been placed.

Music - General (055)

MUC	Music: Composition
MUE	Music: Education
MUG	Music: Conducting
MUH	Music: History
MUL	Music: Literature
MUM	Music: Commercial
MUN	Music: Music Ensembles
MUO	Music: Opera/Musical Theatre
MUR	Music: Church
*MUS	Music
MUT	Music: Theory
MUY	Music: Therapy

Music (Applied) (092)

MVB	Music: Brasses
MVK	Music: Keyboard
MVO	Music: Other Instruments
MVP	Music: Percussion
MVS	Music: Strings
MVV	Music: Voice
MVW	Music: Woodwinds

Nursing (158)

*NUR	Nursing Practice & Theory
NUU	Nursing Universals
PRN	Practical Nursing

See also: Applied Biology

Nutrition (141)

DIE	Dietetics
FOS	Food Science
FSS	Food Service Systems
*HUN	Human Nutrition

See also: Home Economics

Occupational Therapy (057)

OTH	Occupational Therapy

Occupations (156)

ACT	Airconditioning Trades
AER	Automotive/Engine Repair
AET	Alternative Energy Technology
BCT	Building Construction Trades

Occupations (156)

COS	Cosmetology
EER	Electrical/Electronics Repair
FAM	Fashion Modeling
IEA	Industrial Education - Applied
MTR	Metal Trades
SBM	Small Business Management
UPH	Upholstery & Related Trades
WIR	Watch and Instrument Repair

Oceanography (058)

EOC	Engineering, Oceanography
MTE	Marine Technology (161)
OCB	Oceanography: Biological
OCC	Oceanography: Chemical
*OCE	Oceanography: General
OCG	Oceanography: Geological
OCP	Oceanography: Physical

See also: Biological Science, Chemistry, Earth Sciences, Geology, Engineering Technologies

Operating Room Technology(059)

ORT	Operating Room Technology

Opticianry Dispensing Technology (060)

ODT	Opticianry Dispensing Technology

Optometric Technician Science (061)

OTS	Optometric Technical Science

Oral Interpretation (099)

ORI	Oral Interpretation

Oriental Languages & Literature (126)

CHI	Chinese Language
CHI	Chinese Literature in Translation
JAP	Japanese Language

Pharmacy (062)

PHA	Pharmacy

Philosophy (063)

PHH	Philosophy, History of
*PHI	Philosophy
PHM	Philosophy of Man & Society
PHP	Philosophers and Schools

See also: Religion

Physical Education (064)

PEL	Physical Education Acts (General)-Object Centrd., Land
PEM	Physical Education Acts (General)-Perfm. Centrd., LAnd
PEN	Physical Education Acts (General)-Water, Snow, Ice
PEO	Physical Education Acts (Profnl) - Object Centrd., Land
PEP	Physical Education Acts (Profnl)-Perfm. Centrd., Land
PEQ	Physical Education Acts (Profnl)-Water, Snow, Ice
*PET	Physical Education Theory

Physical Therapy (069)

PHT	Physical Therapy

Physician's Assistant (070)

PAS	Physician's Assistant

Physics (068)

ASI	Astronomy, Instrumentation
AST	Astronomy
PHS	Physics - Specialized
*PHY	Physics
PSC	Physical Sciences

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*Generic prefix of the subject matter area where such things as Comprehensive Examinations, Masters Thesis, and Dissertations have been placed.

Political Science (071)

CPO	Comparative Politics
INR	International Relations
PAD	Public Administration (142)
*POS	Political Science
POT	Political Theory
PUP	Public Policy

See also: Urban & Regional Planning

Portuguese Language & Literature (125)

*POR	Portuguese Language
POW	Portuguese Literature (Writings)
PRT	Portuguese in Translation

Psychology (072)

CHB	Comparative Psychology & Animal Behavior
CLP	Clinical Psychology
CYP	Community Psychology
DEP	Developmental Psychology
EAB	Experimental Analysis of Behavior
EDP	Educational Psychology
EXP	Experimental Osychology
INP	Industrial and Applied Psychology
PCO	Psychology for Counseling
PPE	Psychology of Personality
PSB	Psychobiology
*PSY	Psychology
SOP	Social Psychology
SPS	School Psychology

See also: Education, Foundations, Biological Sciences, Student Development

Public Administration (142)

PAD	Public Administration

See also: Management, Political Science

Quantitative Methods in Business (111)

QMB	Quantitative Methods in Business

Radiologic & Nuclear Medical Technology (073)

NMT	Nuclear Medical Technology
RAT	Radiation Therapy
RHT	Radiation Health Technology

(Continued next column)

Radiologic and Nuclear Medical Technology (073) (Continued)

ROT	Reactor Operator Technology
*RTE	Radiologic Technology
SON	Sonagraphy: Diagnostic Ultrasound

Reading (135)

REA	Reading

See also: RED: Language Arts

Real Estate (109)

REE	Real Estate

Religion (074)

REL	Religion

See also: Philosophy, History, Sociology, Humanities, Foreign and Biblical Languages

Respiratory Therapy (075)

APB	Applied Biology (151)
RET	Respiratory Therapy

Risk Management & Insurance (110)

RMI	Risk Management & Insurance

Sanskrit (124)

SAN	Sanskrit

Science Education (023)

SCE	Science Education

Secretarial Science (118)

SES	Secretarial Studies

Slavic Languages & Lit. (143)

CZE	Czech Language
CZW	Czech Lit. (Writings)
POL	Polish Language
RUS	Russian Language
RUT	Russian Lit. in Translation
RUW	Russian Lit. (Writings)
SCW	Serbo-Croation Lit. (Writings)
SEC	Serbo-Croation Language
SLL	Slavic Language
SLW	Slavic Lang. (Writings)

Social Sciences Interdisciplinary (102)

SSI	Social Sciences, Interdisciplinary

Social Studies Education (094)

SSE	Social Studies Education

Social Work (076)

SOW	Social Work

See also: Sociology

Sociology (077)

DHE	Demography
MAF	Marriage & Family
*SOC	Sociology

See also: Social Work, Anthropology, Criminology, Psychology

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*Generic prefix of the subject matter area where such things as Comprehensive Examinations, Masters Thesis, and Dissertations have been placed.

Spanish Language & Literature (144)

*SPN	Spanish Language
SPT	Spanish Literature in Translation
SPW	Spanish Literature (Writings)

Speech Communication (078)

COM	Communication (098)
LIN	Linguistics (127)
ORI	Oral Interpretation (099)
SED	Speech Education
*SPC	Speech Communication

Speech Pathology & Audiology (079)

LIN	Linguistics (127)
*SPA	Speech Pathology & Audiology

See also: Education, Exceptional Child

Statistics (114)

STA	Statistics

See also: Mathematics, Computer Science

Student Development (097)

STD	Student Development

Swahili (145)

*SWA	Swahili Language
SWT	Swahili Literature (Writings)

Surveying

See Engineering/Engineering Tech: Interface (157)

Theatre (080)

ORI	Oral Interpretation (099)
*THE	Theatre
TPA	Theatre Production & Administration
TPP	Theatre Performance & Performance Training

See also: Speech Communication

Transportation (088)

TRA	Transportation

Urban & Regional Planning (082)

*URP	Urban & Regional Planning
URS	Urban & Regional Studies

Veterinary Medicine (083)

VEM	Veterinary Medicine

Women's Studies (089)

WST	Women's Studies

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*Generic prefix of the subject matter area where such things as Comprehensive Examinations, Masters Thesis, and Dissertations have been placed.

FLORIDA STATEWIDE COURSE NUMBERING SYSTEM -- INSTITUTIONAL IDENTIFICATION

ABBREVIATION	FICE NO.	NAME	COUNTY/CITY
BRE	1470	Brevard Community College	Brevard/Cocoa
BRO	1500	Broward Community College	Broward/Ft. Lauderdale
CFCC	1471	Central Florida Community College	Marion/Ocala
CJC	1472	Chipola Junior College	Jackson/Marianna
DBCC	1475	Daytona Beach Community College	Volusia/Daytona Beach
ECC	1477	Edison Community College	Lee/Fort Myers
FJCJ	1484	Florida Junior College at Jacksonville	Duval/Jacksonville
FKCC	1485	Florida Keys Community College	Monroe/Key West
GCCC	1490	Gulf Coast Community College	Bay/Panama City
HCC	7870	Hillsborough Community College	Hillsborough/Tampa
IRCC	1493	Indian River Community College	St.Lucie/Fort Pierce
LCCC	1501	Lake City Community College	Columbia/Lake City
LSCC	1502	Lake Sumter Community College	Lake/Leesburg
MJC	1504	Manatee Junior College	Manatee/Bradenton
MDCC	1506	Miami-Dade Community College	Dade/Miami
NFJC	1508	North Florida Junior College	Madison/Madison
OWJC	1510	Okaloosa-Walton Junior College	Okaloosa/Niceville
PBJC	1512	Palm Beach Junior College	Palm Beach/Lake Worth
PHCC	10652	Pasco-Hernando Community College	Pasco/Dade City
PJC	1513	Pensacola Junior College	Escambia/Pensacola
PCC	1514	Polk Community College	Polk/Winter Haven
SJRC	1523	St. Johns River Junior College	Putnam/Palatka
SPJC	1528	St. Petersburg Junior College	Pinellas/St. Petersburg
SFCC	1519	Santa Fe Community College	Alachua/Gainesville
SJC	1520	Seminole Community College	Seminole/Sanford
SOFL	1522	South Florida Junior College	Highlands/Avon Park
TCC	1533	Tallahassee Community College	Leon/Tallahassee
VCC	6750	Valencia Community College	Orange/Orlando
FAMU	1480	Florida A & M University	Leon/Tallahassee
FAU	1481	Florida Atlantic University	Palm Beach/Boca Raton
FIU	9635	Florida International University	Dade/Miami
FSU	1489	Florida State University	Leon/Tallahassee
UCF	3954	University of Central Florida	Orange/Orlando
UF	1535	University of Florida	Alachua/Gainesville
UNF	9841	University of North Florida	Duval/Jacksonville
USF	1537	University of South Florida	Hillsborough/Tampa
UWF	3955	University of West Florida	Escambia/Pensacola

APPENDIX B

ORGANIZATION OF SCNS

Contents

1. Articulation Coordinating Committee: Functions and Duties
2. SCNS Policy Council: Preliminary Statement of Charges
3. SCNS Appeal Procedures
4. Institutional Liaison Officers: Responsibilities
5. Task Force Coordinators: Responsibilities
6. Discipline Task Force Objectives

SECTION 14
ARTICULATION COORDINATING COMMITTEE

6A-10.24 (14)* Articulation coordinating committee. A community college - university coordinating committee will be established to review and evaluate current articulation policies and formulate additional policies as needed. The coordinating committee shall be composed of seven (7) members, and three (3) of whom shall be appointed by the director of the division of community colleges, three (3) by the chancellor of the state university system, and one (1) by the commissioner of education. This committee shall have a continuous responsibility for community college-university relationships and shall:

(a) Authorize professional committees or task forces consisting of representatives from both levels of higher education to facilitate articulation on subject areas.

(b) Conduct a continuing review of the provisions of this agreement.

(c) Review individual cases or appeals from students who have encountered difficulties in transferring from a community college to a university. Decisions reached by the coordinating committee will be advisory to the institutions concerned.

(d) Make recommendations for the resolution of individual issues and for policy or procedural changes which would improve community college university articulation systemwide.

(e) Establish the priority to be given research conducted cooperatively by the division of community colleges and the division of universities in conjunction with individual institutions. Such cooperative research will be encouraged and will be conducted in areas such as admissions, grading practices, curriculum design, and follow up of transfer students. Systemwide follow-up studies should be conducted, and results of these studies will be made available to all institutions at both levels for use in evaluating current policies, programs and procedures.

(f) Review and approve experimental programs as provided in subsection (13), rule 6A-10.24.

(g) Develop procedures to improve community college-state university articulation by exploring fully specific issues such as academic record form, general education requirements, unit of credit, course numbering systems, grading systems, calendars, and credit by examination.

(h) Without further review by the State Board of Education, revise the scores for approved externally administered examinations used for the awarding of credit under Sections 6A-10.24(3) and (4).

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*Florida Administrative Code; additional duties now listed in Florida Statutes.

Statewide Course Numbering System
Policy Council

Preliminary Statement of Charges

This will serve as a preliminary statement of charges which will be refined by the course numbering director and the board and submitted to the commissioner of education for approval.

A. Immediate Assignment

1. Review the status of all task forces and report to the commissioner the following:

    a. Number, percentage, and names of all task forces which have completed final discipline formats in accordance with the course numbering guidelines.

    b. Number, percentage and names of all task forces which have completed final discipline formats, but which require corrective action in order to be in accordance with the course numbering guidelines.

    c. Number, percentage and names of task forces which have completed final formats but which require consolidation of subject matter common to two or more discipline areas. (These shall be considered as having met the legislative deadline.)

    d. Number, percentage and names of task forces which have not completed final discipline formats in accordance with course numbering system guidelines.

    e. Estimate the number of working days and expected completion date of those task forces which have not completed final discipline formats in accordance with course numbering guidelines.

2. Monitor all task forces falling in the categories of b, c, and d to ensure completion of their work at the earliest possible date and develop a schedule for such completion.

3. Together with the course numbering director, submit a report summarizing the main factors, beginning with those regarded as having the greatest impact, which have contributed to the delays in completing this work in accordance with the schedules developed and in accordance with the principles of the system. This should encompass the period from November, 1972 through March 31, 1976. This report should be submitted by April 9, 1976.

4. Develop an interim maintenance system immediately as described under the responsibilities of the standing Implementation Committee.

5. Identify the representatives of the existing discipline task forces to be recommended to serve on the continuing ad hoc faculty discipline committees. Wherever appropriate, universities, community colleges, and the Division of Vocational Education, shall be represented. The commissioner shall request the appointment of those recommended no later than April 1, 1976.

B. Standing Committees and Assignments

1. Implementation Committee

    a. Develop a detailed interim maintenance system which will enable quantitative and qualitative requirements to be met until full maintenance is in effect. Describe in detail both institutional and course numbering staff procedures so that this system may be effected by April 15, 1976.

    b. Review the implementation plans and schedules submitted by the Board of Regents, Division of Community Colleges, and Division of Vocational Education to ensure joint, effective, and full implementation at the earliest possible date.

    c. Identify those factors which could delay full implementation, propose solutions, and recommend action necessary to overcome those delays.

    d. Identify divisional level differences and conflicts in implementation. Ensure uniformity and consistency in all communicative devices of the system in order to comply with the legislative mandate to improve program planning, to increase communication among community colleges and universities, and to facilitate the transfer of all students.

    e. Review Department of Education management, staffing and resources in order to ensure effective and efficient implementation and maintenance.

    f. Prepare for board review, periodic reports concerning the status of implementation, problems identified and action necessary.

    g. Review and compile cost statements obtained from the course numbering staff, three divisions, and support activities, and submit these together with observations and recommendations to the board for further review and approval by the commissioner.

    h. Monitor the completion of the course equivalency profiles in accordance with the format developed by the Task Force on Course Equivalency profiles, so that this work may be completed well in advance of the final deadline.

2. System Logic, Classification, and Quality Control Committee

    a. Ensure compliance with the basic logic of the system and maintain its integrity to the degree possible.

b. Ensure that classification is by subject matter and not by any unit organizational structure or delivery system. Refine the criteria for placement of subject matter common to two or more disciplines so as to provide guidelines for all users and to ensure the maintenance of a complete and accurate statewide inventory.

c. Review and resolve conflicts referred by the course numbering director or by the discipline task force representatives. Establish procedures for such reviews.

d. Ensure high quality control of the inventory by identifying problems and practices at any level or by any organizational unit, which may jeopardize quality control.

e. Recommend any research or studies which will enhance quality control, and persons or organizations to undertake them, and resources required.

3. Applications Committee

a. Provide an inventory of all possible applications of the course numbering system at the institutional and state level together with recommended priorities, action necessary for such application, and a statement of potential benefits.

b. In cooperation with the Articulation Coordinating Council, determine the implications of the course numbering system for the current Articulation Coordinating Council structure, purposes, policies and guidelines.

c. In cooperation with the System Logic, Classification, and Quality Control Committee, monitor the maintenance and the refinement process for determining the identification of course equivalencies. Recommend any studies, follow-up procedures, and action necessary to enhance this aspect of the system.

11/79

STATEWIDE COURSE NUMBERING SYSTEM

Appeal Procedures

When a faculty member disagrees with any decision made through the course numbering system he may ask for an appeal hearing. The first step in this process is a written request of what is to be appealed and why. This is to be sent to Dr. Michael A. DeCarlo, Director of the Course Numbering System, to be forwarded to the appropriate task force.

In the procedure for hearing appeals, the normal chain is (1) a discussion and decision at the task force level, (2) a hearing by the Standing Committee on System Logic, and (3) a hearing by the full Policy Council. If a mutually agreeable decision can be reached at any of these levels, further action is unnecessary.

Submission of a request does not mean automatic consideration. If the point in question is one which has already been decided by an earlier appeal or a decision of the Policy Council, this decision is relayed to the faculty member making the request. New evidence would have to be produced before an issue about which a decision has been made would be reexamined.

(Compiled from procedures actually used by the Policy Council and the SCNS over several years.)

STATE OF FLORIDA

STATEWIDE COURSE NUMBERING SYSTEM

Institutional Liaison Officers

Responsibilities

1. Serve as the point of contact between the institution and the Statewide Course Numbering System.

2. Be familiar with statutes, state regulations, related to the Statewide Course Numbering System.

3. Be thoroughly conversant with the basic logic, principles, procedures and policies of the System.

4. Attend annual or other periodic statewide orientations and updates for Institutional Liaison officers.

5. Ensure that information concerning the system is given wide dissemination so that faculty and students are completely and accurately advised. Assume responsibility for identifying and responding to rumors and misinformation at the campus level. If in doubt, confer with the Course Numbering System staff before responding.

6. Review faculty concerns before they are forwarded to the Commissioner and to the Legislature, or to other higher authority, for completeness and accuracy. If in doubt confer with the Statewide Course Numbering System staff. These concerns are forwarded to the Statewide Course Numbering System for responses. This is not intended as an act of censorship. It is intended to avoid unnecessary correspondence and to avoid providing responses indicating that the allegations are in error and that evidence to the contrary has already been provided to the institution and/or faculty.

7. Screen, on the basis of this knowledge, all faculty proposals for the modification of existing prefixes, numbers, titles, course descriptions, credits; and for the identification of new courses approved by the institution. Ensure the following:

    a. consistency with the basic logic and principles of the system.

    b. accuracy of modification or new identification being requested and completeness of the approved form being submitted.

    c. compliance with the principle that although two or more equivalent courses may be taught by different organizational entities at an institution, the only one prefix and number may be assigned.

    d. that no request for a variance of existing taxonomy or other appeal is submitted to the Statewide Course Numbering System unless it has been reviewed carefully for consistency with the basic logic and principles and in terms of the precedents already established. Institutional liaison recommendations for variances should not be forwarded to the Statewide Course Numbering System staff in order to avoid pointing out errors or making negative decisions at the institutional level.

    e. that faculty requests for new course prefixes and numbers are not submitted unless the course has, in fact, been approved by the institution.

    f. ensure that faculty task force coordinators at the institution are provided with support to cover clerical assistance and/or graduate student assistance, supplies, postage and system related phone calls. The Board of Regents has provided an annual allocation in support of the Course Numbering System. The Course Numbering System will advise SUS institutional liaison officers as to the amount it recommends for task force coordinator support. Recommendations are based upon the number of courses, complexity of the discipline, frequency and number of changes, special problems and taxonomy content revisions which may be anticipated or necessary, and task force size. Where funds in support of Statewide Course Numbering System are provided for task force coordianators, it is urged that the funds be designated specifically for the task force coordinator rather than the organizational entity to which the coordinator is assigned. This recommendation is based upon some coordinator complaints that they do not, in fact, receive this support.

[9/78]

STATE OF FLORIDA

STATEWIDE COURSE NUMBERING SYSTEM

Task Force Coordinators' Responsibilities

1. Serve in advisory capacity to the Director, Statewide Course Numbering System and to the Statewide Course Numbering System Policy Council on all matters related to the subject matter area assigned.

2. Serve as the coordinator of the subject matter task force which will include the faculty from both the public and private community colleges, universities, and area vocational centers, as appropriate.

3. Recommend to the Director, the need for modifications to task force membership, meetings, and where possible, recommend possible alternate members.

4. Chair task force meetings and appoint an alternate to serve in event of his/her absence.

5. Develop in accordance with the basic logic, principles, procedures, and policies of the Course Numbering System, the subject matter classification system and the directory of equivalent and unique courses.

6. Coordinate task force efforts to modify and refine the classification system as necessary and to identify institutional courses which have been included in the classification system in accordance with the basic logic and principles of the system.

7. Ensure that all courses referred by the Director for clarification and verification of accuracy of prefix/number are returned to the Director promptly. Normally, this should be accomplished within 72 hours and never later than 5 working days. If additional time is necessary, the coordinator should take the responsibility of notifying the director of any further delays and the reasons. This information will be communicated to the Institutional Liaison Officer of the institutions from which the change requests emanated.

8. When classifications, prefixes and numbers are prepared by community colleges for courses which are, in fact, equivalent to any existing courses in upper division of universities or when classification, prefixes and numbers are proposed by upper division universities for courses which are, in fact, equivalent to any existing courses in community colleges or lower division of 4 year universities, ensure that recommendations are based upon review and consideration by the task force representative from each area. Include in the verification that this was done, giving the names and institutions, and sectors of the task force involved.

9. Promote the objective and careful evaluation of all recommendations. Prepare statements of rationale and/or precedents for recommending to the Director, CNS, classification systems and prefixes and numbers other than those recommended by the submitting faculty and institutions.

10. Conduct task force reviews of appeals of existing classifications, systems or equivalencies and make recommendations to the Director, CNS. Where more than one task force in involved, confer with the coordinator of that task force and the Director, Course Numbering System staff.

11. Represent the task force before the Statewide Course Numbering Policy Council when task force recommendations are appealed by faculty members or other task forces. Present the background and rationale for the task force decision.

12. Serve as chairman of the periodic Statewide Course Numbering System Review and Articulation Meetings for the Subject Matter Area. The task force as a whole will work closely with the Director, CNS, in developing the schedules and agendas for the meeting. The chairman will submit to the Director, CNS, the final report and recommendation resulting from the meetings.

13. Submit to the Director, task force recommendations related to the improvement of the accuracy of course titles, descriptions as found in institutional catalogs. This will be done routinely following the periodic task force meetings and whenever deemed necessary by the task force.

14. Serve as one of his/her campus resource persons in matters of general system logic, principles, procedures, policies and in matters related to the subject matter area assigned at the institution.

[9/78]

Discipline Task Force Objectives

1. Develop a taxonomy which will:
    a. represent adequately the major classifications and subclassifications in the discipline;

    b. be sufficiently comprehensive to be acceptable to colleagues in the discipline;

    c. accommodate all discipline offerings in the public universities and community colleges, and in the participating private institutions.

    d. serve as a recommendation to the United States Office of Education for the modification of the Higher Education General Information System (HEGIS) Taxonomy.

2. Develop prefixes and numbers for all courses, in accordance with the principles of the Statewide Common Course Designation and Numbering System.

3. Prepare the Discipline Task Force Taxonomy and the Task Force Report on the Development of the First Discipline Format in accordance with the instructions provided.

4. Upon receipt of institutional reviews of the first discipline format, incorporate or reject recommended modifications as deemed necessary and appropriate. Prepare the second discipline format for resubmission to institutions together with the rationales for not incorporating any recommendations.

5. Upon receipt of institutional reviews of the second discipline format, repeat the process above and prepare the third discipline format.

6. Resolve any remaining difficulties.

7. Submit the final discipline format, taxonomy and report to the Statewide Common Course Designation and Numbering Committee Chairman & Project Director.

[circa 1973]

APPENDIX C

SCNS PRODUCTS AND SERVICES

Contents

1. Institution Course Inventory Report
2. Subject Matter Course Inventory Report
3. a. Subject Matter Classification
   b. Course Inventory Report
   c. Explanation of Subject Matter Classification and Course Inventory Report
4. a. Course Equivalency Profiles
   b. Explanation of Course Equivalency Profiles
5. a. Inventory Update Report - Additions
   b. Inventory Update Report - Changes
   c. Inventory Update Report - Deletes
   d. Inventory Update Report - Reclassifications
6. a. Course Equivalency and Distribution Directory
   b. Explanation of Course Equivalency and Distribution Directory
7. a. Comparability Report
   b. Areas for Regional Analysis Map
8. Sample Front Pages From the Psychology DAWP
9. Research Papers Prepared by Consultants to SCNS, 1977-1980
10. Sample Discipline Conference Agenda

11. a. Report of Discipline Conference - Chemistry

    b. Report of Discipline Conference - Psychology

    c. Report of the SCNS Discipline Conference on Psychology - From the Faculty

12. Requested Information or Services Through August 1981

FLORIDA STATEWIDE COURSE NUMBERING SYSTEM

INSTITUTION COURSE INVENTORY REPORT
BY CNS COURSE ID

001489 FLORIDA STATE UNIVERSITY

INST CRSE ID	INSTITUTION COURSE TITLE	PRE-CNS CRSE ID	INST CREDIT HOURS	ADD DATE	LAST CHG DATE	EFFECTIVE DATE	TERMINATION DATE
URP 5157	COMPUTERS AS AN AID IN DATA ANALYSIS	UPL 592R	0010				
URP 5158	PERS LIMIT IN USING ANAL TECH FOR PLAN	UPL 592S	0010				
URP 5160	PLANNING & POLICY ANALYSIS	UPL 593A	0010				
URP 5161	POLICY DEVELOPMENT	UPL 593B	0030				
URP 5162	STRATEGIES FOR SOLVING SOCIAL PROBLEMS	UPL 593C	0030				
URP 5163	DESIGN OF FUNCTIONAL SYSTEMS	UPL 593D	0020				
URP 5164	EVAL STRATEGIES & TECHNIQUES FOR PLAN	UPL 593E	0030				
URP 5170	CAPITAL IMPROVEMENTS PROGRAMMING	UPL 593M	0020				
URP 5171	LAND DEVELOPMENT CODES	UPL 593N	0030				
URP 5172	PROC FOR IMPLEMENTATION OF A PLAN LAW	UPL 593O	0010				
URP 5173	TRANSLATION OF PLAN LAW INTO OPER PROG	UPL 593P	0020				
URP 5174	PLANNING & BUDGETING	UPL 593Q	0030				
URP 5175	FISCAL PLANNING	UPL 593R	0010				
URP 5176	PLANNING & MANPOWER REQUIREMENTS	UPL 593S	0020				
URP 5177	APPLICATION OF EDUC TECHNIQUES FOR PLAN	UPL 593T	0020				
URP 5180	CREAT WRIT FOR PLAN SIT IN SPEC AREAS	UPL 594A	0020				
URP 5181	DESIGN & PREP OF GRAPHIC TECH & MATERIALS	UPL 594B	0020				
URP 5182	EXPERIMENTAL COMMUNICATION FOR PLANNING	UPL 594C	0020				
URP 5190	PLANNING AS A PROFESSION	UPL 594M	0010				
URP 5191	ADV TECH FOR PROBLEM SOLVING	UPL 594N	0020				
URP 5192	ADV TOPICS IN PROF PLANNING BEH	UPL 594O	0020				
URP 5193	PROF PLANNING & ETHICAL DILEMMAS	UPL 594P	0020				
URP 5194	EXP LEARNING AS A TECHNIQUE IN PLANNING	UPL 594Q	0020				
URP 5201	METHODS OF PLANNING ANALYSIS I	UPL 0505	0030				
URP 5204	METHODS OF PROGRAM EVAL FOR PLANNING	UPL 0583	0030	771129			
URP 5211	METHODS OF PLANNING ANALYSIS II	UPL 0507	0030		770603		
URP 5222	PLANNING SYSTEMS ANALYSIS	UPL 0515	0030				
URP 5231	LAND USE ANALYSIS	UPL 0543	0030		780324		
URP 5256	FISCAL PROBLEMS IN PLANNING	UPL 0584	0030		771118		
URP 5257	FISCAL IMPACT ANALYSIS	UPL 0585	0030		771118		
URP 5261	METH OF PLANNING ANAL: PLAN PROGRAMMING	UPL 509A	0030				
URP 5262	METH OF PLANNING ANAL: COMPREHENSIVE PLAN	UPL 509B	0030				
URP 5281	METHODS OF POLICY ANALYSIS	UPL 0586	0030		771118		
URP 5301	INDIVID DEVEL IN GROWTH PROCESSES	UPL 0541	0030	771129			
URP 5302	NEW TOWNS SEMINAR	UPL 0524	0030				
URP 5310	LOCAL & COMMUNITY PLANNING	UPL 0523	0030				
URP 5311	ADVANCED PLANNING PROBLEMS	UPL 519A	0030				
URP 5311	ADVANCED PLANNING PROBLEMS	UPL 519B	0030				
URP 5311	ADVANCED PLANNING PROBLEMS	UPL 519C	0030				
URP 5312	GROWTH MANAGEMENT ISSUES & PERSPECTIVES	UPL 0540	0030	771129			
URP 5313	GROWTH MANAGEMENT IMPL I: LOCAL	UPL 549A	0030	780324			
URP 5331	PLANNING OF LARGE AGGREGATES	UPL 0526	0030		771118		
URP 5332	GROWTH MANAGEMENT IMPL II: STATE & AREA	UPL 549B	0030	780324			
URP 5351	TRANSPORTATION PLANNING SEMINAR	UPL 0568	0030				
URP 5403	INTRO TO RESOURCE MAN/ENVIRON PLANNING	UPL 0550	0030	771129			

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APPENDIX C-1

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                      * FLORIDA STATEWIDE COURSE NUMBERING SYSTEM *
                      *                                          *
                      *       SUBJECT MATTER COURSE INVENTORY    *
                      *                  REPORT                  *
                      ******************************************

001481  FLORIDA ATLANTIC UNIVERSITY          163   ENGLISH LANGUAGE & LITERATURE (REVISED)
***************************************************************************************************************
     INST                     INSTITUTION                        PREVIOUS   CREDIT   ADD     LAST CHG  EFFECTIVE  TERMINATION
   CRSE ID                    COURSE TITLE                       CRSE ID    HOURS    DATE    DATE      DATE       DATE
***************************************************************************************************************
   AML 4 111   AMERICAN NOVEL TO 1900                           ENG 4344   0040     810128             810801
   AML 4 121   AMERICAN NOVEL SINCE 1900                        ENG 4346   0040     810128             810801
   AML 4 211   MAJOR AMERICAN WRITERS TO 1865                   --NO ID--  0040     810128   810615    810801
   AML 4 321   MAJOR AMERICAN WRITERS SINCE 1865                --NO ID--  0040     810128   810615    810801
   CRW 4 000   CREATIVE WRITING                                 CRW 4132   0040     810128             810801
   ENC 4 210   ADVANCED EXPOSITION                              ENG 4466   0040     810128             810801
   ENG 5 018   LITERARY CRITICISM                               ENG 5836   0040     810128             810801
   ENG 6 009   PRINCIPLES & PROBLEMS IN LITERARY STUDY          ENG 6336   0040     810128             810801
   ENG 6 906   DIRECTED INDEPENDENT STUDY                       --NO ID--  02-4     810128   810611    810801
   ENG 6 971   MASTER'S THESIS                                  --NO ID--  01-9     791220   810611
   ENL 4 122   BRITISH NOVEL TO 1870                            ENG 4318   0040     810128   810615    810801
   ENL 4 132   BRITISH NOVEL SINCE 1870                         ENG 4319   0040     810128   810615    810801
   ENL 4 210   MEDIEVAL LITERATURE                              ENL 4311   0040     810128             810801
   ENL 4 220   RENAISSANCE LITERATURE                           ENL 4321   0040     810128             810801
   ENL 4 221   SEVENTEENTH CENTURY LITERATURE                   ENL 4341   0040     810128             810801
   ENL 4 230   NEOCLASSIC LITERATURE                            ENL 4351   0040     810128             810801
   ENL 4 241   ENGLISH ROMANTIC MOVEMENT                        ENL 4402   0040     810128             810801
   ENL 4 251   VICTORIAN LITERATURE                             ENL 4412   0040     810128             810801
   ENL 4 311   CHAUCER                                          ENL 4111   0040     810128             810801
   ENL 4 333   INTRODUCTION TO SHAKESPEARE                      ENL 4132   0040     810128             810801
   ENL 5 335   STUDIES IN SHAKESPEARE                           ENL 5148   0040     810128             810801
   LIT 4 000   INTERPRETATIONS OF LITERATURE                    --NO ID--  0040     810128             810801
   LIT 4 001   LITERARY GENRES                                  --NO ID--  0040     810128             810801
   LIT 4 032   MODERN POETRY                                    ENG 4742   0040     810128             810801
   LIT 4 041   COMPARATIVE LITERATURE                           LIT 4359   0040     810128             810801
   LIT 4 093   LITERARY THEMES                                  --NO ID--  0040     810128             810801
   LIT 4 196   EUROPEAN ROMANTICISM                             --NO ID--  0040     810407             810801
   LIT 4 930   SPECIAL TOPICS                                   --NO ID--  0040              810611
   LIT 5 937   SEMINAR                                          ENG 5397   0040     810128             810801
   LIT 6 934   SPECIAL TOPICS (LIT)                             --NO ID--  0040     770711   810611
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JUN 15, 1981                                  ************************************************
                                              * FLORIDA STATEWIDE COURSE NUMBERING SYSTEM *
                                              *       SUBJECT MATTER CLASSIFICATION       *
                                              *                    AND                    *
                                              *          COURSE INVENTORY REPORT          *
                                              ************************************************

  055    MUSIC - GENERAL
  MUL    MUSIC LITERATURE

**************************************************************************************************
      CLASS     CLASS                              CLASSIFICATION
      PREFIX    RANGE                                   TITLE
**************************************************************************************************

      MUL    000-099   INTRODUCTION TO MUSIC LITERATURE (NON-MUSIC MAJORS)
         MUL    000-009   MUSIC LITERATURE: PREPARATORY
         MUL    010-019   INTRODUCTION TO MUSIC APPRECIATION

      MUL    100-199   INTRODUCTION TO MUSIC LITERATURE (MUSIC MAJORS)
         MUL    110-119   MUSIC APPRECIATION

      MUL    200-299   MUSIC LITERATURE - STYLES AND FORMS
         MUL    210-219   STYLES AND FORMS

      MUL    300-399   MUSIC LITERATURE - PERIOD
         MUL    320-329   MEDIEVAL AND RENAISSANCE
         MUL    330-339   RENAISSANCE
         MUL    340-349   BAROQUE
         MUL    350-359   CLASSICAL
         MUL    360-369   ROMANTIC
         MUL    370-379   CONTEMPORARY/20TH CENTURY
         MUL    380-389   CONTEMPORARY/JAZZ - POP

      MUL    400-499   MUSIC LITERATURE - BY GENRE (INSTRUMENT)
         MUL    400-409   KEYBOARD
         MUL    410-419   KEYBOARD
         MUL    420-429   STRINGS
         MUL    430-439   STRINGS
         MUL    440-449   WINDS/PERCUSSION
         MUL    450-459   WINDS/PERCUSSION
         MUL    470-479   STRING QUARTET
         MUL    480-489   KEYBOARD LITERATURE

      MUL    500-599   MUSIC LITERATURE - BY GENRE (STRUCTURE)
         MUL    500-509   SYMPHONIC LITERATURE
         MUL    520-529   CONCERTO LITERATURE
         MUL    540-549   SMALL ENSEMBLE LITERATURE
         MUL    560-569   CHAMBER MUSIC

      MUL    600-699   MUSIC LITERATURE - BY GENRE (VOCAL)
         MUL    600-609   SOLO
         MUL    620-629   ADVANCED SOLO
         MUL    640-649   CHORAL
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                         ************************************************
                         * FLORIDA STATEWIDE COURSE NUMBERING SYSTEM *
                         *        SUBJECT MATTER CLASSIFICATION         *
                         *                    AND                       *
                         *         COURSE INVENTORY REPORT              *
                         ************************************************

  055   MUSIC - GENERAL
  MUL   MUSIC LITERATURE

**************************************************************************************************************
INST              PRE-CNS IAC                              USOF    HEGIS CREDIT   CE   ADD   CHG   EFF   TRM          RECORD
ABBR              CRSE ID                                                         FLAG DATE  DATE  DATE  DATE          KEY
**************************************************************************************************************

      MUL   000-099   INTRODUCTION TO MUSIC LITERATURE (NON-MUSIC MAJORS)

         MUL   000-009   MUSIC LITERATURE: PREPARATORY

            MUL 001  INTRO TO MUS APPREC (NON-MAJORS)             1004
USF               MUS 0371 3  ISSUES IN MUSIC                             0020        7801                        001537MUL001 01

         MUL   010-019   INTRODUCTION TO MUSIC APPRECIATION

            MUL 011  INTRO TO MUS LIT-MUS APPREC I (NON-      1006
BRO               MUS 0207 2  MUSIC IN WESTERN CULTURE                    0030                                    001500MUL011 01
CFCC              MUY 0101 1  MUSIC APPRECIATION                          0030                                    001471MUL011 01
CJC               MU  0225 2  MUSIC APPRECIATION                          0030                                    001472MUL011 01
DBCC              MC  0119 1  MUSIC APPRECIATION                          0030                                    001475MUL011 01
FAU               MUS 0300 3  HISTORY AND APPRECIATION OF MUSIC           0030              8103  8108            001481MUL011 01
FAU               MUS 0300 3  HISTORY AND APPRECIATION OF MUSIC           0040        8103              8109      001481MULC11 02
FIU               MUS 0305 3  UNDERSTANDING & ENJYMT OF MUSIC             0050                                    009635MUL011 01
FJCJ              MUY 0101 1  MUSIC APPRECIATION                          0030                                    001484MUL011 01
GCCC              MUY 0201 2  UNDERSTANDING MUSIC                         0030                                    001490MUL011 01
HCC               MUY 0101 1  INTRODUCTION TO MUSIC I                     0030                                    007870MUL011 01
LCCC              MUY 0101 1  MUSIC APPRECIATION                          0030                                    001501MULC11 01
MDCC              MUY 0101 1  MUSIC APPRECIATION                          0030                                    001506MUL011 01
MJC               MUS 0207 2  THE MUSICAL EXPERIENCE                      0030                                    001504MUL011 01
PBJC              MC  0110 1  MUSIC APPRECIATION                          0030                                    001512MUL011 01
PCC               MCG 0140 1  MUSIC APPRECIATION                          0030                                    001514MUL011 01
SFCC              MU  0110 1  MUSIC APPRECIATION                          0030                                    001519MULC11 01
SJC               MC  0215 2  MUSIC LITERATURE/APPRECIATION               0030              8101                  001520MUL011 01
UCF               MUS 0320 3  ENJOYMENT OF MUSIC                          0040                                    003954MUL011 01
UF                MSC 0210 2  INTRODUCTION TO MUSIC LISTENING             0030              8103  8108            001535MUL011 01
UF                MSC 0210 2  INTRODUCTION TO MUSIC LISTENING             0040        8103              8109      001535MUL011 02
USF               MUS 0372 3  THE ENJOYMENT OF MUSIC                      0020              8012  8108            001537MULC11 01
USF               MUS 0372 3  THE ENJOYMENT OF MUSIC                      0030        8012              8109      001537MUL011 02
UWF               MC  0301 3  PERCEIVING MUSIC                            0030              8101  8108            003955MULC11 01
UWF               MC  0301 3  PERCEIVING MUSIC                            0050        8101              8109      003955MUL011 02
VCC               MC  0101 1  MUSIC APPRECIATION                          0030                                    006750MUL011 01

            MUL 012  INTRO MUS LIT-MUS APPRAC II (NON-MA       1006
FIU               MUS 0306 3  UNDERSTANDING & ENJYMT OF MUSIC             0050                                    009635MUL012 01
USF               MUS 0373 3  THE ENJOYMENT OF MUSIC                      0020              8012  8108            001537MULC12 01
USF               MUS 0373 3  THE ENJOYMENT OF MUSIC                      0030        8012              8109      001537MUL012 02
UWF               MC  0302 3  PERCEIVING MUSIC                            0030              8101  8108            003955MULC12 01
UWF               MC  0302 3  PERCEIVING MUSIC                            0050        8101              8109      003955MUL012 02
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Explanation of
Subject Matter Classification and Course Inventory Report

Definition

1. The Subject Matter Classification and Course Inventory (or "Course Inventory") is a report with two distinct sections. The first section, The Subject Matter Classification, represents the structuring of a discipline, or an interdisciplinary area, into subclassifications and sub-subclassifications based on subject matter. A subject matter area may consist of only one prefix (such as Anthropology - ANT) or several (such as History - AFH, AMH, ASH, EUH, HIS, LAH, WOH). Please see Attachment 1 for the Directory of Prefixes, which lists the prefixes and relates them to the appropriate subject matter area(s).
2. The second section, the Course Inventory, is a complete listing of individual courses within a subject matter area. Courses are shown placed within the Subject Matter Classification. Those courses which have been determined to be equivalent for transfer purposes have been assigned a common prefix and number. Those courses considered unique have been assigned a unique number. These two sections of the Course Inventory are always printed together in one report. Please see Attachment 2 for examples of both formats.

Purpose

The Course Inventory is one of the basic documents of the Course Numbering System. It is to be used for reference and information, for aiding in the assignment of prefixes and numbers for new courses, for counseling, for analysis of disciplines on a statewide basis, and so on.

Additional Information Concerning The Course Inventory

1. Prefixes no longer represent institutional organization structure, departmental jurisdiction of courses, or FTE unit allocations. (Please see Attachment 4).
2. Each prefix has the potential for 1000 unique courses; thus, the system can always be expanded to reflect growing areas of knowledge by adding prefixes as needed.
3. The 900-999 series of each prefix has been reserved for "General Miscellaneous Categories." Courses in these categories are generally variable content courses such as special topics, seminars, dissertation hours and so on, and are not considered automatically transferable among institutions.

Format For Subject Matter Classification Printout (See Attachment 2)

1. Subject Matter Area Code. A number, assigned by the Course Numbering Staff, which uniquely identifies a subject matter area (or discipline). For CNS office use only.
2. Subject Matter Area Title. A broad title used to define a subject matter area (i.e., Mathematics).
3. SCNS Prefix. An identifier assigned to a subject matter area which represents the entire area or a major subclassification thereof. An abbreviation of a prefix title (i.e., MAP).
4. Prefix Title. A title used to define the subject area listed under a prefix (i.e., Mathematics Applied).

APPENDIX C-3C

5. Subclassification (Century) Title. A title describing a logical breakdown of the subject matter classification which contains places for a potential of 100 courses (i.e., Optimization & Calculus of Variations).
6. Sub-Subclassification (Decade) Title. A title describing a logical breakdown of the subclassification (century) series. The sub-subclassification contains places for a potential of 10 courses (i.e., Optimization Theory).

Format For Course Inventory Report (See Attachment 3)

1. Subclassification (Century) Title & Range. "MAP 100-199 Mathematical Modelling." Any course listed under this title should have a subject matter which is defined broadly as "Mathematics: Applied" with emphasis on "Mathematical Modelling."
2. Sub-Subclassification (Decade) Title & Range. "MAP 100-109 Mathematical Modelling." Any course listed under this decade should have a subject matter defined broadly as "Mathematics: Applied," "Mathematical Modelling" with emphasis on "Mathematical Modelling."
3. CNS Prefix & Number (CNS Course I.D.). "MAP 103." An identifier which indicates the placement of a course within a subject matter classification. Courses within the same CNS course ID are (with some exceptions) considered automatically transferable.
4. CNS Title. "MAP 103 Mathematical Modelling I." A title used primarily by the Statewide Course Numbering System which is associated with a CNS course. This title does not replace the institutional title.

5. Institution Abbreviation. "FIU, FSU, UWF." The institution abbreviation is a three or four character abbreviation for the name of an educational institution.
6. Pre-CNS Prefix & Number (Pre-CNS Course Identifier). "MAS 0361." An identifier assigned by the institution prior to the implementation of the course numbering system, which uniquely identifies a course offered by that institution.
7. Institutionally Assigned Code. "3." A code assigned by the institution usually indicating year of offering. Other uses include identification of term within a year, remedial offerings, special programs, etc.
8. Institutional Course Title. "Math Models Applic I." A title assigned and used by an institution for each of its courses.
9. USOE Number (Handbook VI Code). "1105990000." A code which indicates the placement of a course within the program classification structure developed by the United State Office of Education and published in Handbook VI.
10. Hegis Number. "1701." A code which indicates the placement of a course within the program classification structure developed for the Higher Education General Information System of the U.S. National Center for Educational Statistics.
11. Credit. "0050." The number of credit hours, in this case 5 credits, granted by the institution for the successful completion of the course.
12. Term. "Q=Quarter; S=Semester; T=Trimester". The institution term indicates the academic division of a year.

13. Add Date (CNS Created Date). "No example." The date that a course was added to the CNS course inventory file.

14. Change Date. "No example." The last date that any field in a CNS course inventory record was changed.

15. Effective Date. "No example." A date which may be assigned by the institution to indicate when a change to or addition of a course becomes effective.

16. Termination Date. "No example." A date which may be assigned by the institution to indicate when a course should be deleted from the course numbering system inventory.

17. Record Key. "009635MAP103 01." (For CNS Office Use Only). An identifier consisting of a six digit number (FICE number) assigned to an institution (009635 is the FICE number for FIU) and the CNS Course I.D.

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* FLORIDA STATEWIDE COURSE NUMBERING SYSTEM *
*      SUBJECT MATTER CLASSIFICATION        *
*                   AND                     *
*         COURSE INVENTORY REPORT           *
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ATTACHMENT 2

SUBJECT MATTER AREA CODE

[illegible] MATHEMATICS — SUBJECT MATTER

MAP MATHEMATICS APPLIED — PREFIX TITLE

SCNS PREFIX -

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CLASS    CLASS                    CLASSIFICATION
PREFIX   RANGE                        TITLE

MAP   100-199   MATHEMATICAL MODELLING
   MAP   100-109   MATHEMATICAL MODELLING
   MAP   110-119   MATHEMATICAL AND STATISTICAL MODELLING
   MAP   120-129   MATHEMATICAL MODELLING AND SIMULATION

MAP   200-299   OPTIMIZATION AND CALCULUS OF VARIATIONS
   MAP   200-209   OPTIMIZATION THEORY
   MAP   210-219   CALCULUS OF VARIATION
   MAP   220-229   INFORMATION THEORY
   MAP   230-239   MATHEMATICAL TECHNIQUES OF OPERATIONS RESEARCH
   MAP   240-249   LINEAR PROGRAMMING
   MAP   250-259   MATHEMATICAL PROGRAMMING
   MAP   260-269   QUEUING THEORY
   MAP   270-279   SIMULATION

MAP   300-399   DIFFERENTIAL EQUATIONS
   MAP   300-309   DIFFERENTIAL EQUATIONS
   MAP   310-319   ADVANCED DIFFERENTIAL EQUATIONS
   MAP   320-329   THEORY OF ORD & PARTIAL DIFF EQUATIONS
   MAP   330-339   THEORY ORDINARY DIFFERENTIAL EQUATIONS
   MAP   340-349   PARTIAL DIFFERENTIAL EQUATIONS
   MAP   350-359   ADV PARTIAL DIFFERENTIAL EQUATIONS
   MAP   360-369   BOUNDARY VALUE PROBLEMS
   MAP   370-379   NUMERICAL SOLUTION OF ORD & PART DIFF EQUATIONS

MAP   400-499   PHYSICAL MATHEMATICS
   MAP   400-409   TECHNIQUES OF APPLIED MATHEMATICS
   MAP   410-419   FOURIER ANALYSIS
   MAP   420-429   SPECIAL TRANSFORMS AND FUNCTIONS
   MAP   430-439   TOPICS IN APPLIED MATHEMATICS
   MAP   440-449   APPROXIMATION THEORY
   MAP   450-459   TRIGONOMETRIC SERIES
   MAP   460-469   FILTERING TECHNIQUES
   MAP   470-479   MATHEMATICAL SYSTEM THEORY

MAP   500-599   TOPICS IN MATHEMATICAL PHYSICS
   MAP   500-509   MATHEMATICAL PHYSICS
   MAP   510-519   CONTINUUM MECHANICS

MAP   900-999   GENERAL MISCELLANEOUS CATEGORIES
   MAP   900-909   DIRECTED READINGS/INDEPENDENT STUDIES
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— SUBCLASSIFICATION (OR CENTURY) TITLE: 100 POTENTIAL COURSES

— SUB-SUBCLASSIFICATION (OR DECADE) TITLES: 10 POTENTIAL COURSES EACH

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*************************************************
* FLORIDA STATE-IDE COURSE NUMBERING SYSTEM     *
*         SUBJECT MATTER CLASSIFICATION         *
*                      AND                      *
*            COURSE INVENTORY REPORT            *
*************************************************
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ATTACHMENT 3

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 044   MATHEMATICS
 MAP   MATHEMATICS APPLIED

*********************************************************************************************************************
INST          PRE-CNS TAC                      USOE      REGIS CREDIT  TERM  ADD    CHG    EFF    TRM        RECORD
ABBR          CRSE ID                                                        DATE   DATE   DATE   DATE         KEY
*********************************************************************************************************************
   MAP   100-149   MATHEMATICAL MODELLING     - SUBCLASSIFICATION (CENTURY) TITLE + RANGE
     MAP   100-109   MATHEMATICAL MODELLING   - SUB-SUBCLASSIFICATION (DECADE) TITLE + RANGE

        MAP 103  MATHEMATICAL MODELLING I               1105990000  1701
FIU  NEW PREFIX  MAS 0361 3  MATH MODELS APPLIC I                          0050   0 ) COURSES AGREED    009635MAP103 01
FSU  AND NUMBER  MAT 0320 3  MATHEMATICAL MODELING OF SCIENTIFIC PROB      0030   0 } UPON AS BEING     001489MAP103 01
USF  (CNS COURSE ID) MS 0000 3  APPLIED MATHEMATICS                        0050   0 )   EQUIVALENT      003955MAP103 01
                          ← INSTITUTIONALLY ASSIGNED CODE (FIRST DIGIT)
        MAP 104  MATHEMATICAL MODELLING II              1105990000  1701
FIU              MAS 0362 3  MATH MODELS APPLIC II                         0050   0 )- COURSE UNIQUE    009635MAP104 01
                                                                                      IN the State
     MAP   110-119   MATHEMATICAL AND STATISTICAL MODELLING

        MAP 117  MATHEMATICAL AND STATISTICAL MODELI 1105990000  1701
FIU              MAS 0501 5  MATHEMATICAL & STATISTICAL MODELING           0050   0                     009635MAP117 01

     MAP   120-129   MATHEMATICAL MODELLING AND SIMULATION

        MAP 127  MATHEMATICAL MODELLING & SIMULATION 1105990000  1701
FIU              MAS 0501 6  SIMULATION AND MODELING                       0050   0                     009635MAP127 01

   MAP   200-299   OPTIMIZATION AND CALCULUS OF VARIATIONS  - SUBCLASSIFICATION (CENTURY) TITLE

     MAP   200-209   OPTIMIZATION THEORY          .SCNS TITLE (does not replace institutional title)

        MAP 202  OPTIMIZATION THEORY I (UNDERGRAD)      1105990000  1701
FSU              MAT 0390 4  OPTIMIZATION PROBLEMS                         0030   0                     001489MAP202 01

        MAP 207  OPTIMIZATION THEORY (GRADUATE)         1105990000  1701
FSU              MAT 0592 5  OPTIMIZATION PROBLEMS                         0030   0                     001489MAP207 01
USF              MTH 0671 5  MATHEMATICAL OPTIMIZATION THEORY III          0030   0                     001537MAP207 01

     MAP   210-219   CALCULUSOF VARIATION

        MAP 216  CALCULUS OF VARIATIONS I               1105990000  1701
FSU              MAT 0695 4  CALCULUS OF VARIATIONS                        0030   0                     001489MAP216 01
UF               MS  0490 6  INTRO TO CALC OF VAR FOR ENGIN & PHYS SCI     0030   0         7706        001535MAP216 01
USF              MTH 0657 6  CALCULUS OF VARIATIONS                        0000   0                     001537MAP216 01

        MAP 217  CALCULUS OF VARIATIONS II              1105990000  1701
FSU              MAT 0593 5  CALCULUS OF VARIATIONS                        0030   0                     001489MAP217 01
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Explanation of

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( DISCIPLINE: 055-MUSIC - GENERAL
      PREFIX: MUL-MUSIC LITERATURE

      COURSE: MUL-001   INTRO TO MUS APPREC (NON-MAJORS)
              PREREQUISITES: NONE
              INTENDED STUDENTS: NON MUSIC MAJOR
              INTRO/ADVANCED: INTRODUCTORY
              MAJOR TOPICS: BASIC UNDERSTANDING OF MUSIC LITERATURE-BAROQUE THRU
               IMPRESSIONISM.
              SPECIAL REQUIREMENTS: N/A
              GUIDELINES   : N/A

      COURSE: MUL-011   INTRO TO MUS LIT-MUS APPREC I (NON-MAJ)
              PREREQUISITES: NONE
              INTENDED STUDENTS: NON-MUSIC MAJORS
              INTRO/ADVANCED: INTRODUCTORY
              MAJOR TOPICS: INVOLVES EITHER AN HISTORICAL OR PERIOD STYLE APPROA
              CH TO THE UNDERSTANDING
              OF THE ART OF SERIOUS MUSIC.  CONSIDERABLE IMPORTANCE IS PLACED
              LISTENING.
              WITH AN EMPHASIS UPON WESTERN ART MUSIC, DESIGNED TO FOSTER GREA
              R UNDERSTANDING
              OF THIS ART FORM. 2 TO 3 QUARTER SEQUENCE USUALLY
              COVERS FROM ANTIQUITY TO CONTEMPORARY.
              SPECIAL REQUIREMENTS: N/A
              GUIDELINES   : N/A
              REMARKS: 2 SEMESTERS OR 3 QUARTERS WILL USUALLY FULFILL SEQUENCE
              FROM ANTIQUITY TO CONTEMPORARY.

      COURSE: MUL-012   INTRO MUS LIT-MUS APPRAC II (NON-MAJORS)
              PREREQUISITES: MUL 011 OR NONE
              INTENDED STUDENTS: NON-MUSIC MAJORS
              INTRO/ADVANCED: INTRODUCTION
(             MAJOR TOPICS: SEE PROFILE MUL 011
              SPECIAL REQUIREMENTS: N/A
              GUIDELINES   : N/A
              REMARKS: SECOND QUARTER OF 2 QUARTERS SEQUENCE OR 2ND SEMESTER OF
              SEMESTERS
              COURSE.

      COURSE: MUL-013   INTRO MUS LIT-MUS APPREC III (NON-MAJORS)
              PREREQUISITES: NONE
              INTENDED STUDENTS: NON MUSIC MAJORS
              INTRO/ADVANCED: INTRODUCTORY
              MAJOR TOPICS: SEE PROFILE MUL 011
              SPECIAL REQUIREMENTS: N/A
              GUIDELINES   : N/A
              REMARKS: 3RD QUARTER OF A 3 QUARTER SEQUENCE.
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APPENDIX C-4a

APPENDIX C-4b

Explanation of Course Equivalency Profiles

Definition and Purpose

Course Equivalency Profiles are basically statements of the commonalities which allow several courses to be grouped under one common prefix and number (the CNS course ID). The profiles are descriptive of what is being taught, and are never prescriptive. Course Equivalency Profiles do not replace catalogue descriptions. If a course has been determined to be unique in the state, its catalogue description is often adapted for use as the Course Equivalency Profile.

A profile has been prepared by faculty task forces for most of the CNS ID's. Certain CNS courses, such as graduate courses, courses in the 900 series, practica, etc., do not have profiles because these courses are not equatable and must be evaluated individually.

Profiles are used in determining the correct placement of a course. (Instructions for recommending prefixes and numbers for new courses may be found on the back of the New Course Transmittal Form.)

Format of the Course Equivalency Profiles

Profiles are arranged first in order by Subject Matter Code (see Attachment 1, Directory of Prefixes: subject matter codes are given in parentheses) and then alphabetically by prefix, number and mode of instruction (if used). The format of the Profile is in six sections:

1. Prerequisites (or corequisites) - this refers only to knowledge skills required as entering competencies.
2. Intended Students - majors/non-majors, etc.
3. Introductory/Advanced - if introductory or advanced is not specified, a broad intermediate range is assumed.

JUN 01, 1981

FLORIDA DEPARTMENT OF EDUCATION
STATEWIDE COURSE NUMBERING SYSTEM

INVENTORY UPDATE REPORT
05/01/81 - 05/31/81

* ADDITIONS *

001537 UNIVERSITY OF SOUTH FLORIDA

CNS CRSE ID	INST ASSIGNED CODE	REC NUM	INSTITUTION COURSE TITLE	INST CREDIT HOURS	HEGIS CODE	USOE HNDBK VI	A/D	EFFECTIVE DATE	TERMINATION DATE	ADD DATE	
035 GERONTOLOGY											
GEY 901	6	02	DIRECTED READINGS	0040	1299			81/08/01	/ /	81/05/14	61
GEY 910	6	01	DIRECTED RESEARCH	0040	1299			81/08/01	/ /	81/05/14	62
GEY 934	6	01	SPECIAL TOPICS IN GERONTOLOGY	0020	1299			81/08/01	/ /	81/05/14	63
037 HISTORY											
AMH 252	3	01	THE UNITED STATES SINCE 1929	0040	2205			81/08/01	/ /	81/05/07	64
AMH 420	3	01	FLORIDA HISTORY	0040	2205			81/08/01	/ /	81/05/07	65
AMH 545	3	01	WAR AND AMERICAN EMPIRE	0040	2205	1508050000		81/08/01	/ /	81/05/07	66
EUH 142	3	01	RENAISSANCE AND REFORMATION	0040	2205	1508060000		81/08/01	/ /	81/05/07	67
EUH 185	3	01	VIKING HISTORY	0040	2205			81/08/01	/ /	81/05/07	68
EUH 202	3	01	ABSOLUTISM AND ENLIGHTENMENT	0040	2205	1508060000		81/08/01	/ /	81/05/07	69
EUH 300	3	01	BYZANTINE HISTORY	0040	2205	1508070000		81/08/01	/ /	81/05/07	70
050 MEDICINE											
BMS 111	6	01	HUMAN ANATOMY	VARY	1206			81/08/01	/ /	81/05/06	71
BMS 664	7	01	FLEXIBLE ELECTIVE IN PATHOLOGY	VARY	1206			81/08/01	/ /	81/05/06	72
GMS 469	6	01	AUTONOMIC PHARMACOLOGY	02-4	1206			81/08/01	/ /	81/05/22	73
MEL 208	8	01	SCREEN. FOR DISEASES AMONG REFUG. IN FLA	VARY	1206			81/08/01	/ /	81/05/06	74
MEL 209	8	01	ENVIRONMENTAL AND OCCUPATIONAL HEALTH I	VARY	1206			81/08/01	/ /	81/05/06	75

JUN 01, 1981

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FLORIDA DEPARTMENT OF EDUCATION
STATEWIDE COURSE NUMBERING SYSTEM

INVENTORY UPDATE REPORT
05/01/81 - 05/31/81

* CHANGES *

001480 FLORIDA A & M UNIVERSITY

CNS CRSE PREFIX	IAC	CNS CRSE NUM/MODE	REC NUM	PRE-CNS CRSE ID	INSTITUTION COURSE TITLE	CREDIT	TERMINATION DATE	EFFECTIVE DATE	CHANGE DATE	
007 BIOLOGICAL SCIENCE										
BSC	4	974	01	*--NO ID--	HONORS	*0040	/ /	*81/08/01	81/05/22	151
BSC	4	974	02	BIO 0492	HONORS	0030	*81/09/10	/ /	81/05/22	152
MCB	2	013C	01	*--NO ID--	GENERAL BACTERIOLOGY	*0040	/ /	*81/08/01	81/05/22	153
MCB	3	020C	01	*--NO ID--	MICROBIOLOGY	*0040	/ /	*81/08/01	81/05/22	154
MCB	5	035C	01	BAC 0507	ADVANCED BACTERIOLOGY	0050	*81/09/10	/ /	81/05/22	155
MCB	4	404C	01	BAC 0400	MICROBIAL PHYSIOLOGY	0050	*81/09/10	/ /	81/05/22	156
MCB	4	911	01	BAC 0410	SPECIAL PROBLEMS	VAR	*81/09/10	/ /	81/05/22	157
PCB	2	033C	01	*--NO ID--	INTRO TO ECOLOGY	*0030	/ /	*81/08/01	81/05/22	158
PCB	3	063C	01	*--NO ID--	PRINCIPLES OF GENETICS	*0040	/ /	*81/08/01	81/05/22	159
PCB	4	203C	01	BIO 0407	MOLECULAR BIOLOGY	0050	*81/09/10	/ /	81/05/22	160
PCB	5	205C	01	*--NO ID--	CELL STRUCTURE AND FUNCTION	*0030	/ /	*81/08/01	81/05/22	161
PCB	4	364C	01	*--NO ID--	PHYSIOLOGICAL ECOLOGY	*0030	/ /	*81/08/01	81/05/22	162
PCB	5	665	01	--NO ID--	HUMAN GENETICS	*0020	/ /	*81/08/01	81/05/22	163
PCB	3	683	01	BIO 0302	EVOLUTION & POPULATION BIOLOGY	0030	*81/09/10	/ /	81/05/22	164
PCB	3	744C	01	BIO 0307	ORGANISMIC PHYSIOLOGY II	0030	*81/09/10	/ /	81/05/22	165
ZOO	1	010C	01	*--NO ID--	ZOOLOGY	*0040	/ /	*81/08/01	81/05/22	166
ZOO	2	203C	01	*--NO ID--	INVERTEBRATE ZOOLOGY I	*0030	/ /	*81/08/01	81/05/22	167
ZOO	4	233C	01	*--NO ID--	PARASITOLOGY I	*0030	/ /	*81/08/01	81/05/22	168

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                               * STATEWIDE COURSE NUMBERING SYSTEM *
                               *                                  *
                               *     INVENTORY UPDATE REPORT      *
                               *      05/01/81 - 05/31/81         *
                               *                                  *
                               *           * DELETES *            *
                               *                                  *
                               ************************************

  001480  FLORIDA A & M UNIVERSITY

**********************************************************************************************
  CNS      INST       CNS      REC            INSTITUTION            EFFECTIVE  TERMINATION        DATE
  CRSE     ASSIGNED   CRSE     NUM            COURSE TITLE              DATE       DATE           DELETED
  PREFIX   CODE       NUM/MODE
**********************************************************************************************

  004   ARCHITECTURE

   ARC      4        215      02   SYSTEMS BUILDING                     81/03/01    /  /           81/05/11      1
   ARC      5        240      02   INTRO TC DESIGN MCHTODS & THEORIES   81/08/01    /  /           81/05/11      2
   ARC      4        279      01   INTRO TO TIME MANAGEMENT IN DESIGNS  81/08/01    /  /           81/05/11      3
   ARC      6        279      02   TIME MANAGEMENT IN DESIGNS           81/08/01    /  /           81/05/11      4
  007   BIOLOGICAL SCIENCE

   BSC      4        932      01   BIOLOGY PRO SEMINAR                   /  /       /  /           81/05/22      5
```

APPENDIX C-5C

FLORIDA DEPARTMENT OF EDUCATION
STATEWIDE COURSE NUMBERING SYSTEM

INVENTORY UPDATE REPORT
05/01/81 - 05/31/81

RECLASSIFICATIONS

001480 FLORIDA A & M UNIVERSITY

001 AGRICULTURE

OLD CNS CRSE ID	INST ASSIGNED CODE	REC NUM	INSTITUTION COURSE TITLE	INST CREDIT HOURS	TERM DATE		NEW CNS CRSE ID	INST ASSIGNED CODE	REC NUM	INSTITUTION COURSE TITLE	INST CREDIT HOURS	EFF DATE	
ORH 827C	4	01	LANDSCAPE ENGINEERING	0040	/	--	ORH 827C	4	02	LANDSCAPE ENGINEERING	0040	/	39
ORH 905	4	01	SPECIAL RESEARCH PROBLEM	01-5	/	--	ORH 905	4	02	SPECIAL RESEARCH PROBLEM	01-5	/	40
PLS 221C	2	01	PLANT PROPAGATION	0040	/	--	PLS 221C	2	02	PLANT PROPAGATION	0040	/	41
SOS 022C	3	01	THE NATURE & PROPERTIES	0050	/	--	SOS 022C	3	03	THE NATURE & PROPERTIES	0050	/	42
SOS 022C	5	02	SOIL SCIENCE	0050	/	--	SOS 022C	5	04	SOIL SCIENCE	0050	/	43
SOS 131C	4	01	SOIL FERTILITY & FERTILI	0040	/	--	SOS 131C	4	02	SOIL FERTILITY & FERTILI	0040	/	44
SOS 211C	3	01	SOIL & WATER CONSERVATIO	0040	/	--	SOS 211C	3	02	SOIL & WATER CONSERVATIO	0040	/	45
SOS 427C	4	01	SOIL & PLANT ANALYSIS	0050	/	--	SOS 427C	4	02	SOIL & PLANT ANALYSIS	0050	/	46
SOS 701C	3	01	SOIL GEOGRAPHY	0040	/	--	SOS 701C	3	02	SOIL GEOGRAPHY	0040	/	47
SOS 732C	4	01	SOIL SURVEY	0040	/	--	SOS 732C	4	02	SOIL SURVEY	0040	/	48

004 ARCHITECTURE

OLD CNS CRSE ID	INST ASSIGNED CODE	REC NUM	INSTITUTION COURSE TITLE	INST CREDIT HOURS	TERM DATE		NEW CNS CRSE ID	INST ASSIGNED CODE	REC NUM	INSTITUTION COURSE TITLE	INST CREDIT HOURS	EFF DATE	
ARC 055	5	01	ARCHITECTURAL COMPUTER T	0020	/	--	ARC 055	5	02	ARCHITECTURAL COMPUTER T	0020	/	49
ARC 056	5	01	ARCHITECTURAL COMPUTER G	0040	/	--	ARC 056	5	02	ARCHITECTURAL COMPUTER G	0040	/	50
ARC 215	4	02	SYSTEMS BUILDING	0020	/	--	ARC 214	4	01	SYSTEMS BUILDING	0020	81/08	51
ARC 246	5	01	DESIGN METHODS 1.1	0020	/	--	ARC 246	5	02	DESIGN METHODS 1.1	0020	/	52
ARC 247	6	01	DESIGN METHODS 2.1	0020	/	--	ARC 247	6	02	DESIGN METHODS 2.1	0020	/	53
ARC 240	5	02	INTRO TO DESIGN MEHTODS	0020	/	--	ARC 256	5	01	INTRO TO DESIGN MEHTODS	0020	81/08	54
ARC 279	4	01	INTRO TO TIME MANAGEMENT	0020	/	--	ARC 272	4	01	INTRO TO TIME MANAGEMENT	0020	81/08	

STATE OF FLORIDA DEPARTMENT OF EDUCATION
STATEWIDE COURSE NUMBERING SYSTEM

COURSE EQUIVALENCY AND
DISTRIBUTION DIRECTORY

133 FRENCH LANGUAGE AND LITERATUR
FRF FRENCH LANGUAGE

COMMUNITY COLLEGES — UNIVERSITIES

CNS COURSE ID	FLAG	CNS COURSE TITLE	BRE	BRO	CFCC	CJC	DHCC	ECC	FJCJ	FKCC	FLACC	GCCC	HCC	IRCC	LCCC	LSCC	MJC	MDCC	NFJCC	OWJCC	PBJCC	PHCC	PJC	PCC	SFCC	SJC	SUFL	SJRC	SPJC	TCC	VCC	FAMU	FAU	FIU	FSU	FTU	UF	UNF	USF	UWF	TOT
FRE 135	P	ELEM FRENCH ACCELERATED I																					1																		1
FRE 136	P	ELEM FRENCH ACCELERATED II																					1																		1
FRE 170		ELEMENTARY FRENCH STUDY ABROAD		1																																					1
FRE 200	P	INTM READING & CONVERSATION I	2	2			2	2	2		2	2	2	2	2	2	2	2	2	2	2		2	2	1	2	2		2		2	2		3		2	2		2	3	24
FRE 201	P	INTERMEDIATE READING AND CONVERSATION I	2	2			2	2	2		2	2	2	2	2	2	2	2	2	2	2		2	2		2	2		2		2	2		3		2			2		20
FRE 202	P	INTM READING AND CONVERSATION III																														2				2					2
FRE 210	P	INTM READING AND CONV ACCELERATED I																					2																		1
FRE 211	P	INTM READING AND CONV ACCELERATED II																					2																		1
FRE 230		INTERMEDIATE READING I																																	2						1
FRE 231		INTERMEDIATE READING II																																							
FRE 235		INTERMEDIATE READING ACCELERATED																															3								1
FRE 240		INTERMEDIATE CONVERSATION I		2															3				2										3		2	3	2		3		8
FRE 241		INTERMEDIATE CONVERSATION II																					2												2				4		3
FRE 270		INTM STUDY ABROAD																																3							1
FRE 300		REVIEW GRAMMAR AND SYNTAX																															4		2		3				3
FRE 311		ADVANCED GRAMMATICAL & SYNTAX II																																							
FRE 320		ADVANCED GRAMMAR AND SYNTAX FOR TEACHIN																																			3				1
FRE 330		GRAMMAR THROUGH CULTURE AND CIV I															2																								1
FRE 331		GRAMMAR THROUGH CULTURE AND CIV II															2																								1
FRE 400		CONVERSATION AND COMPOSITION I		2											2			2											2			4	4								6
FRE 401		CONVERSATION AND COMPOSITION II		2											2			2											2			4	4								6

375

APPENDIX C-6a

NOTE: P means consult profiles for information about tranferability.

Explanation of Course Equivalency and Distribution Directory

Definition and Purpose

The Course Equivalency and Distribution Directory is one of the principal tools used in evaluating the transcript of a transferring student. The (new) format for this directory is a matrix (table), in order by Statewide Course Numbering System (SCNS) course identification. The Directory indicates which institutions offer each course, and thus clearly reflects the transferability status for each course among the various institutions. Each subject matter area (discipline) is found on a separate microfiche card. (Attachment 1 lists the various subject matter areas, associated prefixes, and code numbers).

Some of the possible institutional applications for the Directory have been enumerated:

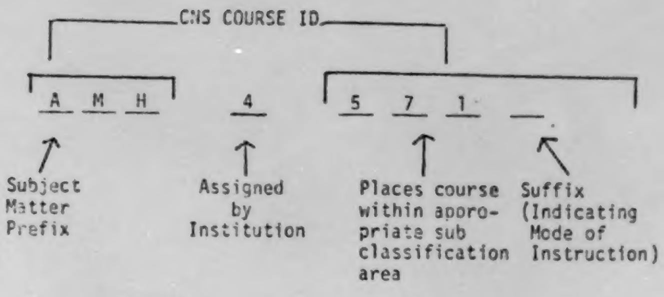
1. Admissions Officers/Registrars
   a. Facilitates admissions counseling.
   b. Facilitates evaluation of transcripts of transfer students and placement of these students in courses.
2. Academic Advisors/Counselors/Students
   a. Facilitates self-counseling and planning by students.
   b. Facilitates counseling of transfer students with regard to comparability of courses between institutions.
   c. Facilitates the identification of all equivalent courses for certification purposes.
3. Academic Department Heads/Faculty
   a. Provides an up-to-date inventory of the courses in each subject matter area.
   b. Provides a data base for the study of subject matter area trends by institution, region or on a statewide basis.
   c. Reveals the degree of comparability of associate degree program courses with those offered at the universities.

   d. Provides a means by which problems such as articulation and overlap can be identified, so that proposals for corrective action can be initiated.
   e. Provides a data base for administrators of institutional consortia.
4. Curriculum Committees/Self Study Committees
   a. Provides one basis for assessing the extent to which community college courses are preparing students to continue their studies.
   b. Provides a data base for exploring the desirability of establishing consortia among institutions.
5. Boards of Trustees (Community Colleges)
   a. Provides boards with data concerning the degree of comparability of community college associate degree program courses and lower division university courses.
   b. Provides boards with data which will assist in determining the extent of unwarranted institutional overlap, duplication, and proliferation.
   c. Provides boards with data concerning the degree of the overlap and duplication of community college and university courses.
   d. Provides boards with data which will enable them to determine whether or not corrective action has been taken and when.

General Rule for Course Equivalencies

The Statewide Course Numbering System uses a course designation which consists of a 3-letter prefix, a 4-digit number and a suffix (when necessary) indicating mode of instruction. The suffix may be blank, indicating lecture, L for lab, or C for combination lecture/lab. All courses assigned the same CNS course identifier--the same last three digits of the number, and suffix (if present)--have been judged to be equivalent, and should be considered automatically and mutually transferable. The first digit of the four digits is assigned by the institution, and generally indicates at what level the course is offered. This digit does not affect the equivalency.

Example:


CNS COURSE ID
A M H
4
5 7 1
Subject Matter Prefix
Assigned by Institution
Places course within appropriate sub classification area
Suffix (Indicating Mode of Instruction)

Explanation: AMH 4571 American History course, in the subclassification area of Early Afro American history, taught at the senior level (no lab).

The receiving institution is never precluded from accepting non-equivalent courses for satisfying certain requirements. The Directory may be considered an agreed-upon minimum of equivalencies.

Using the Directory for Transfer Interpretation

1. First, locate the microfiche card for the particular subject matter area in question. On the top left of each page are the subject matter area title, code number, and prefix title; participating community colleges and universities are listed across the top. (See Attachment II for abbreviation identification.) Note the participation of one private institution, Florida College (FLAC).
2. The column on the left is the CNS Course ID, in prefix and number order within each subject matter area. The next column to the right, titled "flag", will be explained in detail below. The third column is the CNS course title for each prefix and number. Then, reading across a particular line, the institutions which offer the course are indicated in the appropriate column by a number or a letter.
   a. A number usually indicates the level at which the course is offered at that institution.
   b. In cases where two or more courses at an institution have been assigned the same CNS Course ID, (as in the case of cross-listed courses), a letter has been used to indicate at which level the courses are taught. For example, A indicates more than one course, with the institutionally assigned digit of 1, B indicates 2, and so on. An X indicates more than one course with differing institutionally assigned digits.
3. Next, locate the particular course in question, presumably one listed on the transferring student's transcript (given as a CNS course ID). Read across the line to see if the two institutions involved, the transferring and the receiving, both offer the course. If they do, the student would not be required to take the course again, even if the first digits differ. (However, see Exceptions below.) For example, see Attachment III. Note that a student who has taken FRE (2)400 at Miami-Dade Community College would not be required to take FRE (4)400 at FAU. If he were transferring from MDCC into FAU, the courses would be considered equivalent.
4. The column on the right shows the number of institutions which offer each CNS course. A blank in that column indicates that the course is offered only at a private institution not included in the Directory.

Exceptions to the General Rule for Course Equivalencies

The column entitled "Flag" is used to indicate that although courses have been assigned the same CNS Course ID, they are not automatically transferable. Either an "N" or a "P" may appear in this column. An "N" meaning non-equivalent, has been used to indicate the following exceptions to the general rule for course equivalencies:

1. Courses in the 900-999 series are not automatically transferable, and must be evaluated individually. These include such courses as Special Topics, Internships, Practica, Study Abroad, Thesis and Dissertation Credits, and so on.
2. Non-equivalent courses, such as Internships, Clinical Experience, Practica, and Study Abroad, are usually in the 900's, but can be incorporated into other areas of the classification scheme. Whenever they are found, however, such courses need to be individually evaluated by the receiving institution.
3. Automatic equivalency among applied courses in the performing arts (Art, Dance, Music, Theatre) does not exist. Final approval of such courses as having provided a level of competence substantively equivalent to that expected in the departmental offering shall be subject to review of portfolio or by recital or audition, as appropriate. The specific categories of courses which are not equivalent are as follows:

   Art - Courses prefixed ART are not automatically transferable.

   Dance - Courses prefixed DAA, and courses prefixed DAN with numbers ranging from 700-999, are not automatically transferable.

   Music - Courses prefixed MUN, MVB, MVK, MVO, MVS, MVV, and MVW are not automatically transferable.

   Theatre - Courses prefixed TPP, with numbers ranging from 000-299, are not automatically transferable.

A "P" used in the flag field indicates that the Course Equivalency Profile* should be consulted. The respective task force has included there an explanation of how it wishes those equivalencies to be evaluated. The following, then, are also exceptions to the general rule for course equivalencies and are marked by a "P".

1. A lecture/lab sequence is equivalent (for purposes of automatic transfer) to the combination course bearing the same prefix and number. The following example is from the Oceanography subject matter course list:

Introductory Marine Biology	OCB 010 (lecture Only) OCB 010L (Lab Only)
Introduction to Marine Biology with Lab	OCB 010C (Lecture and Lab Combined)

   For transfer purposes, the Oceanography Task Force has determined that the sequence OCB 010 + OCB 010L is equivalent to OCB 010C.
2. Equivalency established among sequences of courses within given subject matter areas, rather than equivalencies between individual courses within the sequences, because of order of subject matter taught, semester and quarter hour differences, and so on.

---

*Also available on Microfiche.

For example:

Sequence A		Sequence B
CHM 030 & 030L CHM 031 & 031L	=	CHM 030C CHM 031C

Sequence A (Quarter Hours)		Sequence B (Semester Hours)
FRE 100 FRE 101 FRE 102	=	FRE 100 FRE 101

In both examples above, the entire Sequence A is equivalent to the entire Sequence B, rather than the individual courses within the sequences being equivalent. Thus, a sequence of courses at one institution may be equivalent to a sequence at another institution, and all courses are so identified in the Course Equivalency Profiles; the individual courses having the same numbers within the sequences are not necessarily equivalent, and must be evaluated by the receiving institution on an individual basis. Please see Attachment IV. "Directory of Equivalent Sequences."

Graduate Courses

A final category of non-equivalent courses covers graduate level courses. Because they are easily recognized by the institutionally assigned digit, five or above, they have not been further flagged. Please note, however, that if graduate level courses have been determined to be substantively equivalent to undergraduate courses, they are transferable.

```
JUL 24, 1981                              ********************************************                     PAGE 1
                                          * FLORIDA STATEWIDE COURSE NUMBERING SYSTEM *
                                          *                                          *
                                          *              COMPARABILITY               *
                                          *                 REPORT                   *
                                          ********************************************

  006          ART
  FKCC  VS.  FAMU  FSU  UF   UNF  USF  UWF  FIU  FAU  UCF

*******************************************************************************************************
  DUAL    INST      CNS    IAC            INSTITUTION                  PRE-CNS   CREDITS  EFFECTIVE  TERMINATION
  LEVEL   ADDR    CRSE ID                 COURSE TITLE                 CRSE ID              DATE        DATE
*******************************************************************************************************

        FKCC     ARH0050   1  HISTORY OF ART, ANCIENT TO RENAISSANCE    ART 0111   0030    800801

   *       FSU   ARH0050   3  INTRO TO THE HISTORY AND CRIT OF ART I    ART 0371   0040                810909
           UF    ARH0050   2  INTRO TO PRIN & HISTORY OF ART 1          ART 0207   0030                810909
   *       UWF   ARH0050   3  ART HISTORY                               ART 0303   0050                810909

        FKCC     ARH0051   1  HISTORY OF ART, RENAISSANCE THROUGH PRES  ART 0112   0030    800801

   *       FSU   ARH0051   3  INTRO TO THE HISTORY AND CRIT OF ART II   ART 0372   0040                810909
           UF    ARH0051   2  INTRO TO PRIN & HISTORY OF ART 2          ART 0208   0030                810909
   *       UWF   ARH0051   3  ART HISTORY                               ART 0304   0050                810909

        FKCC     ARH0054   2  INTRODUCTION TO CONTEMPORARY ART          --NOID--   0030    820401


        FKCC     ART1000C  1  CRAFTS                                    APD 0101   0030

   *       FAMU  ART1000C  3  WOOD METAL PLASTICS                       ART 0323   0030
   *       FSU   ART1000C  3  DESIGN FOR CRAFTSMAN I                    CON 0315   0030                810801
   *       UF    ART1000C  3  CRAFTS                                    SCA 0330   0040
   *       UNF   ART1000C  3  CRAFTS                                    ART 0313   0030    810801
   *       FAU   ART1000C  3  CRAFTS                                    ART 0354   0040    810801
   *       UCF   ART1000C  3  3-D DESIGN                                ART 0305   0030

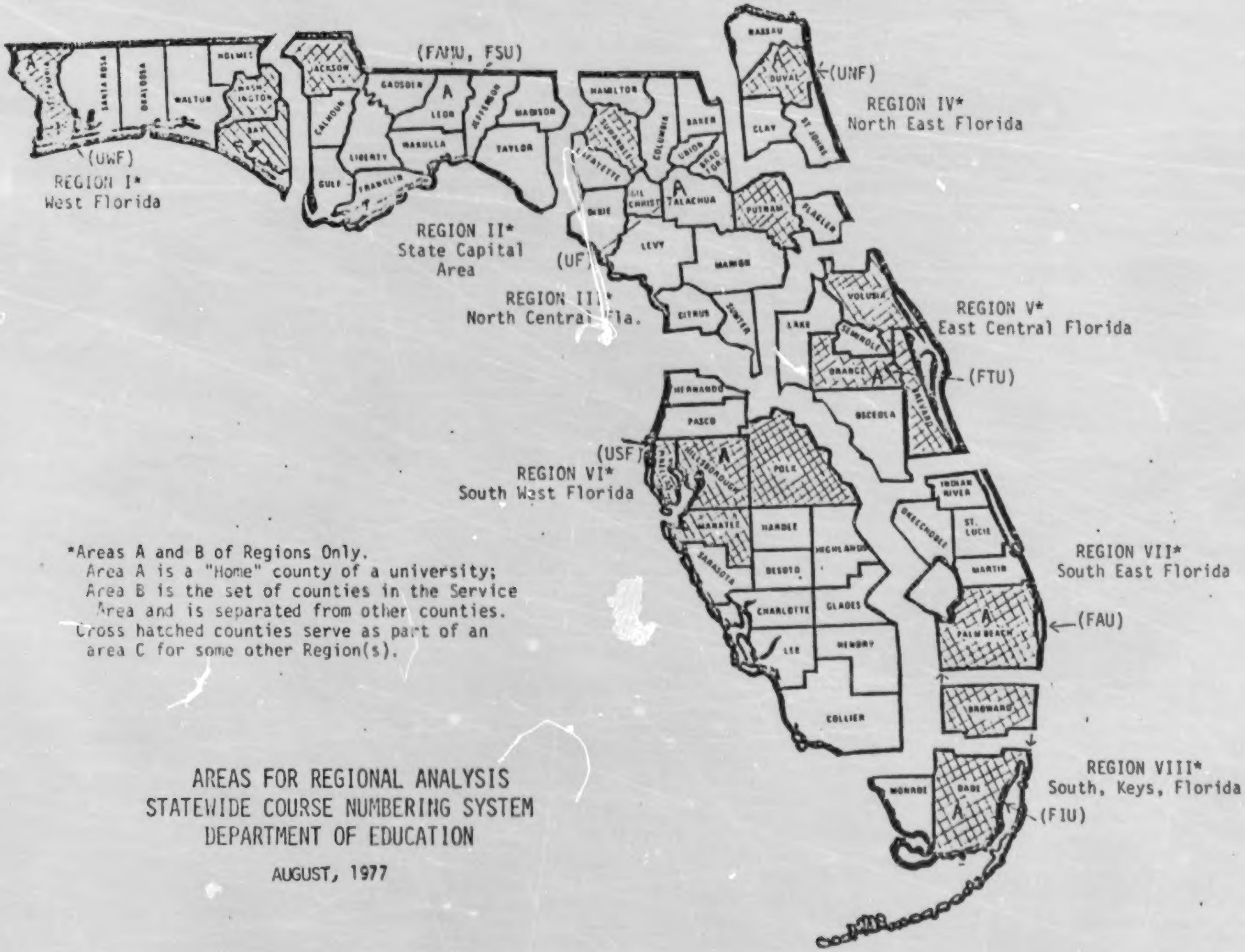
        FKCC     ART1010C  1  CRAFTS II                                 ARD 0102   0030

   *       FSU   ART1010C  3  DESIGN FOR CRAFTSMAN II                   CON 0316   0030                810909

        FKCC     ART1100C  2  CERAMICS I                                APD 0230   0030

   *       FAMU  ART1100C  3  CERAMICS I HANDBUILDING                   ART 0305   0030
   *       FSU   ART1100C  3  BEGINNING CERAMICS                        --NOID--   0030
   *       UF    ART1100C  3  CERAMICS I                                ART 0380   0040
   *       USF   ART1100C  3  CERAMICS I                                ART 0331   0040
   *       UWF   ART1100C  3  CERAMICS INTRODUCTORY HANDBUILDING        ART 0310   0030    810801
   *       FAU   ART1100C  3  CRAFTS-CERAMICS                           ART 0355   0040
   *       UCF   ART1100C  3  CERAMICS                                  ART 0381   0030
```

APPENDIX C-7a


(UWF)
REGION I*
West Florida
(FAMU, FSU)
REGION II*
State Capital
Area
(UF)
REGION III*
North Central Fla.
(UNF)
REGION IV*
North East Florida
REGION V*
East Central Florida
(FTU)
(USF)
REGION VI*
South West Florida
REGION VII*
South East Florida
(FAU)
REGION VIII*
South, Keys, Florida
(FIU)
A

*Areas A and B of Regions Only.
Area A is a "Home" county of a university;
Area B is the set of counties in the Service
Area and is separated from other counties.
Cross hatched counties serve as part of an
area C for some other Region(s).

AREAS FOR REGIONAL ANALYSIS
STATEWIDE COURSE NUMBERING SYSTEM
DEPARTMENT OF EDUCATION

AUGUST, 1977

- SAMPLE -

DISCIPLINE ANALYSIS WORKING PAPER:

Psychology

E. Raymond Hackett
And
John S. Waggaman

September 1979

NOTE: This paper is subject to revision after it is reviewed by Florida postsecondary education officials and faculty members.

Statewide Course Numbering System
Department of Education
State of Florida
Tallanassee, Florida

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Preface

A Discipline Analysis Working Paper (DAWP) is a report about a set of courses in the Statewide Course Numbering System (SCNS) inventory. The DAWP includes data and information about the character and quality of the course inventory; it also incorporates a historical record of the development of the taxonomy and the classification of courses within it. Even though a massive effort was made over several years to create the original course inventory, many faculty members and administrators are still discovering and learning about the system. This paper presupposes the reader will have some knowledge about the logic and operation of the system.

The purpose of including so much descriptive information and data about the courses in a single discipline is to provide a record at a single point in time of the state of the discipline in the SCNS course inventory. Because the DAWP is developed exclusively from the data and information in the system, the first version of the DAWP will be reviewed by the faculty discipline task force, with comments added by the director of the SCNS. The final draft prepared by the faculty consultant will incorporate any appropriate changes. Every reasonable effort will be, or has been, made to insure that the facts of the system are reported accurately and fairly. Suggestions for improvement are welcome, as are corrected data and information which might enhance the report.

The most analytical portion of the DAWP will be found in the sections concerned with comparability of courses among the community colleges and universities in Florida. Courses can be comparable by having been equated as to subject matter; courses can also be comparable by level (freshman, etc.). Within the SCNS, all courses can be compared among all institutions; however, because there are distinct and verifiable transfer patterns between the community colleges and universities, and also among the universities, these regional patterns are used as a basis for comparing courses. This is both a realistic and efficient procedure for the analyses presented. It must be stressed that this form of analysis is the first of its kind in the United States, as is the SCNS itself, and probably subject to enhancement and refinement as postsecondary faculty, staff, students and administrators become acquainted with it. Again, suggestions for improvements are welcome.

A DAWP is prepared by a faculty consultant or is prepared under the supervision of such a person; the faculty and doctoral students involved with these studies have worked in the discipline, curriculum analysis, or conducted institutional research. The organization of the DAWP is the macro-to-micro, overview to details, and narrative to descriptive to analytical. Data items are identified and discussed; interpretations are offered in some instances, and sources listed. The data for the studies are taken from computer printouts, tabulations compiled by SCNS staff and other kinds of analyses and documentation. The SCNS professional staff who serve as liaison to the faculty task forces in subject matter areas have provided much valuable information and are a prime resource. The SCNS support staff are instrumental in the preparation of the enormous amount of detailed reports and DAWP manuscript drafts; their services are beyond compare.

The Statewide Course Numbering System is a straight-forward idea which has been thoroughly documented and operated for several years. Those wanting to learn the details about the system should contact the director of SCNS. The Discipline Analysis Working Papers are not designed to defend the basic concepts of the SCNS or to induce change in them. However, suggestions for improvements are welcome but should be sent to the director of the SCNS, Dr. Michael A. DeCarlo. If a suggestion is found potentially useful it may be adopted immediately or referred to the SCNS Policy Council, which reviews the operations of the system.

RESEARCH PAPERS PREPARED BY CONSULTANTS TO SCNS*

1977

"Areas for Regional Analysis." John S. Waggaman, August, 1977, 11 pages.

"Florida College and University Catalogs and Statewide Course Numbering." John S. Waggaman, August, 1977 (Revised), 14 pages.

"Analysis of Equivalent and Duplicate Courses (With Examples from Ceramics Arts Courses)." John S. Waggaman, August, 1977. 16 pages.

"II. Chemistry Discipline Data Summary," part I left incomplete waiting for reaction of Chemistry Task Force faculty; in "Discipline Analysis Working Paper: Chemistry." John S. Waggaman, September, 1977, 14 pages.

"Outline for Preparing a SCNS Discipline Analysis Working Paper." John S. Waggaman, September, 1977, 3 pages.

"ADDENDUM to the Study Papers on Statewide Course Numbering Released August and September, 1977." John S. Waggaman, November, 1977.

1978

"Areas for Regional Analysis." John S. Waggaman, July, 1978, revised. 7 pages.

"Institutions Whose Courses Are to Be Examined in Comparability Studies." John S. Waggaman, July, 1978, 8 pages.

"Analysis of Equivalent and Duplicate Courses (With Examples From Ceramics Art Courses)," with an "Appendix on Differentials in Costs and Appropriations." John S. Waggaman, August, 1978, revised. 34 pages.

"Interinstitutional Curriculum Analysis." (John S. Waggaman) August, 1977. 8 pages. Prepared for Dr. Allan Tucker.

"Anthropology Discipline Analysis Working Paper." John S. Waggaman, September, 1978. 54 pages.

"Astronomy Discipline Analysis Working Paper." Robert W, Flynn, September, 1978. 51 pages.

"Chemistry Discipline Analysis Working Paper." Robert W. Flynn, September, 1978. 62 pages.

"Economics Discipline Analysis Working Paper." John S. Waggaman, September, 1978. 62 pages.

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*Data were compiled by SCNS professional and support staff, with the latter typing and reproducing the final reports.

"Geology Discipline Analysis Working Paper." Robert W. Flynn, September, 1978. 50 pages.

"Mathematics (With Statistics Included) Discipline Analysis Working Paper." Robert W. Flynn, September, 1978. 99 pages.

"Physics Discipline Analysis Working Paper." Robert W. Flynn, September, 1978. 78 pages.

"Social Work Discipline Analysis Working Paper." John S. Waggaman, September, 1978. 51 pages.

"Sociology Discipline Analysis Working Paper." John S. Waggaman, September, 1978. 67 pages.

"Guidelines For Preparing a Discipline Analysis Working Paper." Suggestions, standard materials and examples from the Sociology DAWP. John S. Waggaman, December, 1978. 100 pages est.

1979

"A Policy Analysis Paper About the Authority and Responsibility of the Statewide Course Numbering System Office to Sponsor Discipline Studies and Conferences." John S. Waggaman, May, 1979. 9 pages.

"Political Science Discipline Analysis Working Paper." John S. Waggaman, August, 1979. 99 pages.

"Applied Biology Discipline Analysis Working Paper." John S. Waggaman and E. Raymond Hackett, September, 1979. 64 pages.

"Biochemistry Discipline Analysis Working Paper." E. Raymond Hackett and John S. Waggaman, September, 1979. 43 pages.

"Biological Sciences Discipline Analysis Working Paper." E. Raymond Hackett and John S. Waggaman, September, 1979. 82 pages.

"Criminal Justice Discipline Analysis Working Paper." John S. Waggaman, September, 1979. 85 pages.

"Oceanography Discipline Analysis Working Paper." E. Raymond Hackett and John S. Waggaman, September, 1979. 58 pages.

"Psychology Discipline Analysis Working Paper." E. Raymond Hackett and John S. Waggaman, September, 1979. 135 pages.

"Reactions and Sugestions From John S. Waggaman About Summer 1979 and Future Studies of the Statewide Course Numbering System." September, 1979. 12 pages.

"Studies of Withdrawal and Retention Rates In American Collegse and Universities." E. Raymond Hackett, November, 1979 (unpublished first draft). 13 pages.

1980

Surrogate Learning Measures: Credit, Other Units and Non-credit. John S. Waggaman, September, 1980. 132 pages.

Letter from John S. Waggaman to Michael A. DeCarlo, July 16, 1980. A three page report about the SCNS registrar's meeting and their reactions to calendar conversion.

FOR INFORMATION ONLY

STATE OF FLORIDA
DEPARTMENT OF EDUCATION
TALLAHASSEE 32304

RALPH D. TURLINGTON
COMMISSIONER

March 28, 1979

SAMPLE
DISCIPLINE CONFERENCE

(Letter sent individually to each institutional representative who will attend the Statewide Course Numbering System Articulation Conference: Chemistry)

The purposes of this letter are as follows:

- to express to you our appreciation for serving as your institution's undergraduate teaching faculty representative to the Statewide Course Numbering System Articulation Conference on Chemistry;
- to indicate the background for this conference; and
- to provide you with advance information for planning purposes.

Background - The Statewide Course Numbering System included in its planning a series of meetings in which faculty could improve upon the work already accomplished, identify problems revealed by the data, and recommend solutions. This was consistent with the Florida statute stating that the purpose of the Course Numbering System shall be ". . . to improve program planning, to increase communications among community colleges and universities, and to facilitate the transfer of students . . . ."

During the 1978 Legislative session, a special committee was appointed to hear university and community college faculty concerns related to the Course Numbering System. It was emphasized by this Committee, with Senator Kenneth MacKay, Senator Philip Lewis and Senator Betty Castor as members, that the existence and continuation of the Course Numbering System were not at issue but that the Legislature was desirous of making the system as accurate and as useful as possible.

There were two major outcomes of this hearing:

- the awareness that many faculty members were not familiar with the actual purposes, policies, and practices of the course numbering system; and
- the Legislative endorsement and funding of the Statewide Course Numbering System Articulation Conferences.

During the summer of 1978, university faculty consultants completed Discipline Analysis Working Papers (DAWP) in several disciplines including chemistry. The major purposes of these studies, based upon the course numbering data base developed by faculty task forces and their reviewing colleagues in the institutions, are indicated below:

- to identify overlapping between community colleges and universities;
- to identify any lack of comparability between A.A. degree courses and lower division university courses; and
- to provide for the subject matter task forces and the institutional representatives attending the Statewide Course Numbering System Articulation Conferences a source document for deliberations.

The major purposes of the Statewide Course Numbering System Articulation Conferences include the following:

- to provide information concerning the inventory of offerings by subject matter classification, institution, comparability and uniqueness;
- to discuss approaches for ensuring as high a degree of accuracy in the course numbering system data base as possible;
- to discuss approaches for the confirmation of assignment of prefixes and numbers for new courses;

- to identify possible overlapping between community colleges and universities and to develop for the discipline a conceptual framework for determining what offerings ought to be lower division and what offerings ought to be upper division;
- to develop a conceptual framework for coping with expansion of the body of knowledge in the discipline and any shifting of offerings from upper to lower division;
- to identify those circumstances where flexibility in jurisdiction of courses is desireable and to propose guidelines for the reasonable approval and monitoring of the continuation of exceptions;
- to identify perceived areas of lack of comparability of community college offerings with university offerings;
- to provide an opportunity for the faculties of the community colleges and universities to review any perceived lack of comparability and to discuss options for addressing this area of concern; and
- to provide the Task Force on Chemistry with the opportunity to compile the observations, conclusions and recommendations of the Conference for institutions, agencies and where appropriate, for the State Board of Education.

The final reports of these conferences will be submitted to the Associate Deputy Commissioner of Education via the Director of the Course Numbering System. The latter will forward the reports together with any observations or recommendations.

The Associate Deputy Commissioner will review the reports and then distribute them to the Director, Division of Community Colleges; Chancellor, State University System; and Chairman, Articulation Coordinating Committee with copies to the Chairmen of the House and Senate Committees on Education.

It is intended that the recommendations resulting from these meetings will receive careful consideration and that formal responses will be provided. These responses will be coordinated, compiled and distributed by the Associate Deputy Commissioner.

Following this letter, we will send background materials for review prior to the Conference. The Conference will proceed on the basis that the participants will have familiarized themselves with the materials. It is emphasized that this review is essential if the participants are to proceed with the specific matters outlined.

Thereafter, you will receive a survey form related to the major issues. The results will be compiled by task force representatives and reported at the Conference. Prior to the Conference, you will receive a copy of the program agenda.

Advance information for planning purposes is appended.

We are looking forward to seeing you at the Conference and working with you.

Sincerely,

Michael A. DeCarlo
Director
Statewide Course
Numbering System

MAD/as

Enclosures

May 15, 1979

Mr. W. Cecil Golden
Associate Deputy Commissioner
Department of Education
The Capitol, Room 1711
Tallahassee, Florida 32301

Dear Mr. Golden,

This letter is an informal report about the first all-faculty articulation meeting for the discipline of chemistry sponsored by the Statewide Course Numbering System, Florida Department of Education. I am writing this report as one who teaches graduate students about the organization, administration, financing and policy of America's postsecondary educational institutions; however, having devised the general procedures for compiling and analyzing data from the course inventory files of the Statewide Course Numbering System, I can only claim to be an expert witness rather than a detached observer.

First, the meeting was well attended. Representatives appeared from all nine public universities, University of Miami, and 26 public community colleges. The meeting was chaired by a very able woman; other women, minority members, and persons of all ages and seniority in the profession were in attendance. A number of the oldest participants had served together on professional committees as far back as the early 1960's.

Second, the participants began their work on time and, to my great surprise and delight, engaged the issues immediately. There was low hostility evident, a willingness to attempt problem solving from the beginning, and a forthright effort to come to grips with some very different problems; e.g., jurisdiction, comparability of preparation, minimal skills and knowledge necessary for majors, and so on.

Third, the meeting was clearly focused from the beginning. This was due to the experience and knowledge of the participants, the background papers compiled by the Course Numbering Staff, the leadership of the conference and the work of the participants in subgroups. It was apparent from the references to the conference materials that almost everyone had completed his homework before arriving. The meeting had to be one of the most task-oriented faculty meetings on record.

Mr. W. Cecil Golden
May 15, 1979
Page two

Fourth, the inclusion of the May 1970 articulation report by the Florida Section of the American Chemical Society was important for several reasons: it clearly focused on the academic issues involved in the education of students about chemistry. It was also important to have the "old gray heads" who had been working over the years on articulation problems in attendance; four of them had been engaged with articulation problems as early as 1963. One of these senior persons, an early and persistent opponent of course numbering, endorsed the course numbering project(after finally learning that only chemistry course sequences were equated and not individual courses within the sequence) and explained the history of articulation for chemistry.

Fifth, the role of the State in articulation was discussed openly. As reported in the historical summary, the Florida Department of Education early sponsored discipline articulation meetings, then dropped them. The need for the meetings had not decreased; rather it had grown when the Department of Education was reported not to have the funds to sponsor such conferences. Now, as the State has assumed a more vigorous role in post-secondary education, the participants felt it necessary to reconsider their involvement with the State. The need for articulation meetings was evident by the fact that the Florida Section of the American Chemical Society still has a standing committee on articulation affairs. Unfortunately, the latter was not focusing on problem solving in this area, but now organized to hear papers on teaching, etc. The May 1979 conference, however, shifted the attention of the standing committee back to the real problems and the basic purposes for which the committee was created. Thus, even though the discipline's professional association willingly and responsibly focused part of its attention on matters abandoned earlier by the State, the committee too needed an external stimulus to reorient it to its fundamental concerns.

Sixth, the concern of the participants about the continued encroachment of the State on the educational expertise of faculty was most evident in the discussion about who should be the "sponsor," publisher and/or disseminator of results of this articulation meeting. The hard core of the participants' fears focused on the behavior of institutional administrators who would receive the report of the conference. If State sponsored, the chemists felt that most administrators would accept the report as an authoritative statement about curriculum and thereby restrict chemistry course offerings to the minimum. The report, in defining minimum chemistry courses for transfer students, could be easily interpreted as the maximum courses necessary in the community colleges.

Seventh, there was much discussion about the kinds of courses, topics, skills and performances which should be required of students wanting to major in chemistry. One of the more difficult problems for chemistry faculty in the community colleges was to work out and enforce minimum requirements on students who were unprepared. Again, both the limitation on the time available for the A.A. degree (i.e., within that minimun only so many credit hours are available for chemistry, math, etc.) and the more subtle pressures of students wanting to move on, keep the cost of their education down, and so on restrict the time available for remedial work. However, a few community college chemists said they would not let the unprepared student pass until he/she could demonstrate competence suitable for a lower level undergraduate.

Eighth, although all the universities could agree on the minimal courses required, one university chemistry professor refused to endorse any report or document which stated such requirements for the community colleges; he seemed to be invoking academic freedom and professional autonomy for the chemists at the community colleges. This person's department clearly specifies the requirements for its freshmen and sophomore students, but he would not endorse such action for others, even when community college representatives said they needed such information. The latter, of course, wanted to take the report to their administrators to bolster their case (and budget claims) for program improvements, remedial courses, and so on.

Ninth, the universities, funded on FTE student enrollment, are becoming very concerned about the effect of any reports about poorly trained transfer students. To put it directly, they are afraid their critical reports will lead community colleges not to send them students. Only one university faculty member apparently failed to see that open discussion of sender problems at articulation meetings could alleviate some of these difficulties. Incidentally, the faculty member voicing this problem was the same one who didn't want to tell the community colleges what their courses should be.

Tenth, a distinguished faculty member from FAU had several concerns about the basic characteristics of the course numbering system. For example, he reported that the chemistry courses had to be listed according to the statewide course numbering sequence in their catalogs; his registrar was said to have explained that the Department of Education required such action which, of course, was utter nonsense. Having surveyed all of Florida's postsecondary institutional catalogs a few years ago, I saw an enormous variety of methods for arranging courses by major, concentration, interdepartmental programs, etc. Clearly, this professor had been misled by his institutional officials, on this and several other "requirements." It is amazing that administrators still have difficulty understanding what course numbering is all about--factually.

Finally, the conference participants proposed solutions to the two principal issues in articulation--jurisdiction of offerings and comparability of preparation of transfer and native students. The matter of jurisdiction in chemistry was addressed in a short statement drawn up and approved by the participants. The comparability issue was dealt with by the development of specific minimum guidelines for the chemistry courses comprising the first half of a chemistry major. These actions demonstrate clearly the results which can be achieved by a knowledgeable, willing faculty group.

I hope this informal report shows the need for and potential benefits from the all-faculty conferences sponsored by the Statewide Course Numbering System, Florida Department of Education, a "neutral" agency in these matters. Many, many years ago Dr. DeCarlo committed himself to use of faculty expertise in this project. The wisdom of this decision can be seen when the chemists decided without dissent to retain the existing taxonomy for their courses, itself the work of a faculty task force on chemistry.

If I can provide any additional information, please call on me.

Sincerely,

John S. Waggaman
Associate Professor
of Higher Education
Florida State University
107-D Stone Building
Tallahassee, Florida 32306

(Duplicate letter was sent to Mr. Shelley Boone, Mr. Herman Myers, and Dr. Bill Law.)

RALPH D. TURLINGTON
COMMISSIONER

STATE OF FLORIDA
DEPARTMENT OF EDUCATION
TALLAHASSEE 32301

May 16, 1980

Dr. Michael A. DeCarlo
Director, Statewide Course
Numbering System
Department of Education
108 Collins Building
Tallahassee, Florida 32301

Dear Mike:

After attending the Discipline Conference of psychologists May 13 and 14 and making some additional inquiries, I will share with you my reactions to this meeting. First, however, let me confess that I enjoyed the commendations several psychologists gave about the "art and science" communicability of the Discipline Analysis Working Paper which I, along with my graduate assistant, Ray Hackett, prepared on this discipline. A substantial amount of the credit goes to your staff who compiled the data and edited for factual accuracy. Guery's early judgement after I finished the first draft that the paper was one of our best efforts seems to have been confirmed.

The conference of psychologists was well attended with all nine universities represented and 23 of the 28 community colleges. Of those in attendance, a number of women were representatives and two were minority persons. A number of the persons were chairpersons or division directors or had other administrative responsibilities even though they were teaching faculty members.

It is important to note that very few of the psychologists knew one another with the major exception being those involved in bilateral articulation relationships. Unlike chemistry, physics, English, philosophy and other disciplines, psychology does not have a statewide professional association; it did about 13 years ago. This fact is important because the conference proceedings involved an extensive series of exchanges which, even though clearly directed to the important topics on the conference agenda, were laden with information about the unique programs and needs of each institution's psychology program. Clearly the members were trying to assimilate much information about psychology programs around the state while trying to solve the problems before them. A sizable number of participants indicated that they were going to telephone their newly developed colleagues after they returned home; they often mentioned that they felt encouraged to do this

now that they had a list of participants, had met them fact-to-face, etc. There seems no doubt that course numbering has facilitated the building of a "community of scholars" among psychology faculty in the State of Florida. Perhaps after they have ruminated about the problems identified at the conference and continued their interaction with new found colleagues the group can reassemble to develop a genuine consensus about the important issues of the discipline.

The university representatives have a number of unique problems to solve because of their change from a quarter to a semester calendar. I systematically discussed with each such university representatives the extent to which each was approaching conversion with extensive curriculum revision in mind; all said they were, but one person indicated his institution was trying to confine conversion to a change in hours (e.g., 5 to 3, 4 to 3 hours). You should note that very few said they have received specific conversion guidelines--perhaps because the BOR just passed a rule about the common calendar at its May 9 meeting. More importantly to course numbering, perhaps, was my finding that none of these representatives indicated having received any information about any systematic procedures for submitting course changes to Course Numbering! Perhaps another meeting of the university representatives only would be appropriate to help them decide on the classified numbers for their converted courses. (?) Would it be appropriate to consider having a meeting of all task force coordinators to work out some arrangements for coordinating the submission of course changes resulting from the conversion of the calendar?

Finally, even though this conference turned out to be a first attempt, rather than a final one, to identify and solve problems, it did take some significant steps forward. These are fully described in the report of the conference which I have seen in draft form. The report presents a clear agenda of problems which can be worked on at the next conference, should one be scheduled.

Sincerely,

Jack

John S. Waggaman
Associate Professor

JSW/as

APPENDIX C-11c

REPORT OF THE STATEWIDE COURSE NUMBERING SYSTEM
DISCIPLINE CONFERENCE ON PSYCHOLOGY

State of Florida
Department of Education
Tallahassee, Florida
Ralph D. Turlington, Commissioner
Affirmative action/equal opportunity employer

May 1980

Orlando, Florida

UNIVERSITY OF FLORIDA
GAINESVILLE 32611

DEPARTMENT OF PSYCHOLOGY

Report of the Statewide Course Numbering System Discipline Conference on Psychology

A conference on articulation in psychology, endorsed and funded by the Florida Legislature, was held in Orlando on the afternoon of May 13 and morning of May 14, 1980. The opportunity for participation was extended to 37 teaching faculty in psychology in all public community colleges and universities in Florida. The participants and their institutional affiliations appear in Appendix 1.

The conference was coordinated by Dr. Guery Davis of the Statewide Course Numbering System (SCNS) staff and the Psychology Task Force of the SCNS. Dr. C. Michael Levy, Professor at the University of Florida and Coordinator of this Task Force, served as Chair of the conference and was responsible for preparation of this report.

The conference was convened to discuss (1) jurisdiction and comparability problems, particularly to distinguish between lower and upper level courses across the 14 prefixes used by this discipline, as well as to focus upon the 13 of the approximately 644 classified courses offered statewide in psychology which are listed as both upper and lower level courses; (2) the instructional range and boundaries encompassed by each of the 14 prefixes; (3) use of the laboratory indicator in the SCNS; (4) a proposal for a year-long sequence in General Psychology; (5) matters of mutual concern associated with the change in 1981 to a common calendar; and (6) transfer patterns and problems of transfer exhibited by AA students matriculating at the universities. The first three of these agenda items were identified as problems for the discipline and/or the Task Force by E. Raymond Hackett and John S. Waggaman in their September, 1979 report to the SCNS entitled, "Discipline Analysis Working Paper: Psychology". The fourth issue resulted from an analysis of the national trends in the teaching of the first college-level course in psychology which had been presented at a recent Task Force meeting by Merle E. Meyer, Chair of Psychology at the University of Florida. The last two matters were scheduled because of their timeliness and obvious significance to a group which had been called together to address the broad theme of articulation.

Before reporting the outcome of these deliberations, it should be underscored that several of the problems were exceptionally broad in scope, touched directly or indirectly upon sensitive matters (including institutional prerogatives and viability) requiring a considerable sophistication in the workings of the SCNS, as well as previous articulation agreements, State statutes and long-standing regulations. It should also be noted that of the 7 hours of scheduled meeting time only about 5-1/2 hours were allotted for the group to participate actively in its assignments. Finally, the report would be incomplete if it did not indicate that most of the group voluntarily continued working in the conference room for almost an hour beyond the scheduled adjournment for the first session and nearly that long after the adjournment of the second. Given these constraints and the responsiveness of the participants, we note here a recommendation that the group be called together again in six months to complete its work on problems which were not totally resolved at this conference.

(1) The participants discussed the jurisdiction and comparability problems independently. The major focus was on jurisdiction, which centered about a working definition of "lower level" courses. The following definition was proposed and approved by a majority of the participants:

> Lower level courses in psychology are undergraduate instructional courses that convey the study of the behavior and experience of organisms, characterized as broad surveys aimed at general education. This includes courses in a general purpose program such as a General Studies program, courses for Community Education, or for Basic Skills programs such as Adult Education programs, or courses designed to update paraprofessional and other health-related specialists practicing in their chosen field such as continuing professional programs, or courses designed in a fashion similar to continuing professional education programs not intended to lead to a degree or certificate, such as Occupation Update programs. We consider appropriate for the major in psychology a limited number of general survey/introductory courses in various tracks offered in psychology at the upper level; i.e., general, developmental, social, educational, psychobiological, experimental psychology and personality if General Psychology is a prerequisite for the latter courses.

It was noted, however, that the last sentence would impact directly upon the universities which ultimately controlled the major and that the definition was, in fact, opposed by all university participants. Accordingly, it was proposed that an ad hoc subcommittee be formed to work together, and in concert with the appropriate community college and university chairs, to formulate a definition which would be more satisfactory. Volunteers were solicited for this ad hoc subcommittee (see Appendix 4). The Task Force Coordinator will work closely with this group to insure that a proposal or set of proposals are readied for the next conference.

The issue of course comparability, which is largely a matter of insuring that equated courses are functionally equivalent (i.e., not only encompass substantially equivalent content, but permit students to exit the courses with similar skills, knowledge, and experiences) could not be meaningfully addressed without a significant amount of data which are not presently available. The Task Force Coordinator will work with the SCNS staff to try to obtain these data.

(2) Substantial agreement was found for the labels which describe the content of the 14 prefixes used by the discipline. In general, labels prepared by HEGIS (Higher Education General Information System) were found to be inappropriate. In the instances where there was little consensus (noted below) an ad hoc committee of volunteers (see Appendix 5) will consult with appropriate sources of information (e.g., the American Psychological Association, SUS and community college department chairs having numerous courses within the prefix) to refine the labels for presentation to the next discipline conference.

PSYCHOLOGY PREFIX DEFINITIONS

CBH--COMPARATIVE PSYCHOLOGY & ANIMAL BEHAVIOR

Instructional programs that concern the behavioral patterns of a variety of species of animals with emphasis on naturally-occurring behavioral patterns; analyses of such patterns include research on the control mechanisms, development, evolutionary history, and adaptive significance of such behavior.

CLP--CLINICAL PSYCHOLOGY

Instructional programs that convey research and application of psychological principles, theories and methods which deal with individual and groups' coping abilities, and psychological and behavioral adjustment. It includes training and practice in diagnosis, treatment, and prevention, as well as research for the expansion of knowledge.

CYP--COMMUNITY PSYCHOLOGY

The theory and practice of using psychological science, practice, and theory in the community, including schools, government and social agencies, correctional systems and private enterprise.

DEP--DEVELOPMENTAL PSYCHOLOGY

No consensus could be reached for the label for this prefix. The HEGIS definition and two alternates are shown below.

HEGIS: Instructional programs that convey the study of progressive changes in the behavioral processes of individuals as a function of aging through the life span, from conception to death.

ALTERNATES:

Instructional programs that convey how individuals and classes of individual organisms develop psychologically. It deals with the characteristic behaviors found at various ages or stages of development, and with the general principles that describe the causes of development, including the interaction of developmental functions.

Instructional programs that focus upon the systematic exploration of normal human psychological development emphasizing changes which correlate with chronological age.

EAB--EXPERIMENTAL ANALYSIS OF BEHAVIOR

Instructional programs that convey the study of experimental and applied analyses of acquisition, maintenance and modification of behavior of individual organisms, and the determination of the nature of processes involved in reinforcement, punishment, respondent conditioning stimulus control, schedules of reinforcement, etc.

EXP--EXPERIMENTAL PSYCHOLOGY

Instructional programs that convey the study of the general body of methods, data, and laws that have been derived by scientific research including theoretical and systematic points of view applicable to the prediction, control, and understanding of the behavior of individual human organisms and other species.

EDP--EDUCATIONAL PSYCHOLOGY

No consensus could be reached for this prefix. The HEGIS definition and two alternates are shown below.

HEGIS: Instructional programs that convey the study, selection and applications of methods, facts, and theories of psychology that relate to individual learning in formal courses of instruction.

ALTERNATES:

Instructional programs that relate the application of psychology to education.

Instructional programs that convey the study, selection, and applications of methods, facts and theories of psychology that relate to learning processes in instructional settings.

INP--INDUSTRIAL AND APPLIED PSYCHOLOGY

Instructional programs that convey the scientific investigation of applied problems by the methods, concepts, and principles of psychology, and utilization of the findings to increase efficiency, motivation, morale, etc.

PCO--PSYCHOLOGY OF COUNSELING

No consensus could be reached for this prefix. The HEGIS definition and three alternates are shown below.

HEGIS: Instructional programs that convey the study of theory and practice of systematically selecting the facts and theories of psychology with the intent of advising people about their problems.

ALTERNATES:

Instructional programs that teach the utilization of theory and research to design psychological treatments for facilitation of high-level functioning.

Instructional programs that teach research and theories in problems of human adjustment while focussing on short-term psychological treatment to facilitate individual learning. [N.B. Courses in Human Adjustment are now presently classified within the CLP prefix.]

Instructional programs that convey the study of theory and practice of systematically selecting the facts and theories of psychology with the intent of assisting people in coping with their problems.

PPE--PSYCHOLOGY OF PERSONALITY

Instructional programs that convey the study of the unique organization of the characteristics that set the individual apart from other individuals and, at the same time, determine how others respond to that person.

PSB--PSYCHOBIOLOGY

Instructional programs that focus upon the relationships between physiological mechanisms and behavior.

PSY--PSYCHOLOGY

Instructional programs that convey an understanding of the behavior, mental processes, and experience of the individual organism and the principles that determine and guide individual and group behavior.

SOP--SOCIAL PSYCHOLOGY

Instructional programs that convey the scientific study of the behavior of the individual as it influences and is influenced by other people, groups, and social stimuli.

SPS--SCHOOL PSYCHOLOGY

Instructional programs that convey the principles and procedures of searching for new knowledge and providing information about educational programs, personnel, methods and theories, programs that convey the study and application of mathematical and statistical models and research methodology in education; and programs that convey the principles and procedures used in the testing, evaluating, and measuring of educational programs, personnel, methods, and theories.

(3) Considerable discussion was devoted to the proposal to develop minimal standards of content for a year-long course in General Psychology (see Appendix 2). Note that two issues were involved: one which addressed the

possibilities of a more-or-less "standard" set of topics, and a second which addressed the depth and breadth of coverage possible in a one- (vs a two-) semester course. The proposal to standardize the content of the course met with little initial enthusiasm.

Several individuals questioned the need to consider at all the manner that the General Psychology course is presently being taught. Participants from three universities stated that some students offer General Psychology when they transfer, but the receiving institution has to ascertain course content by asking the student specifically what was taught. Often a student will report that the course treated principally group dynamics or human adjustment or some other narrow subset of the domain of topics found in most introductory psychology textbooks. This suggested the need for periodic reviews of course placement in the SCNS to determine if courses had evolved out of their original classification.

There was also a fear that a one-year sequence would create a drop in FTE vis a vis other disciplines. Despite all of these concerns, there was a feeling that the proposed topics could not be taught adequately within the confines of a one-semester course. The consensus indicated that a one-semester course in General Psychology was preferred to a one-year course for students fulfilling their

General Education requirements, but the suggestion of a second semester of General Psychology, aimed at psychology majors, was generally supported.

Many objected to a proposed laboratory in the General Psychology course, stating that they did not have the facilities or the inclination to do a thorough job.

There was consensus that all students enrolling for a course in General Psychology should be exposed to the variety and richness of our discipline and should exit the course with a solid foundation. There was both trepidation and apprehension expressed about defining the parameters of this foundation, but an ad hoc subcommittee was formed of volunteers (see Appendix 6) who agreed to examine the issue and its implications in greater detail and report their findings to the entire group in six months. In order to facilitate the work of this subcommittee, the Chair recommended that Dr. Davis procure from each institution copies of current syllabi used in these beginning courses to enable the subcommittee to determine the extent of the commonality of content that now exists.

(4) Appendix 4 identifies the 13 courses within the DEP, EDP, INP, PCO, PSY, and SOP prefixes about which there was some concern in the Hackett-Waggaman Discipline Analysis Working Paper. At issue was whether the courses had been properly placed, whether each was a lower or upper level course or a "transition" course (neither upper nor

lower level), or whether the courses were listed at the upper level only because the universities are required to teach only upper-level courses. There was insufficient time to examine each of these courses, but a proposal emerged to examine each of the 13 classified courses and assign them sequential numbers based upon the initial competencies or maturity expected of students. Examination of these courses will be conducted by the same ad hoc subcommittee which will focus upon the more general issue of the distinction between upper and lower level courses.

(5) There seemed to be some obvious barriers in the dissemination of information about SCNS. Only half of the participants who were not at one time on the SCNS Psychology Task Force had ever seen a listing of the Psychology taxonomy prior to Dr. Davis having sent these materials in anticipation of the conference. Only 10% of the participants had ever seen a set of course profiles. We cannot isolate the locus of the bottleneck, but one clearly exists.

(6) The conference served an unintended, albeit extremely important, function in helping the community college participants recognize the positions of the universities with respect to the scope and depth of training expected of transfer students, and sensitized the participants from the university community to the different functions and populations which are of concern to the community college staff.

(7) It became clear that the policies of individual universities in accepting courses or credit from transfer students differed in important ways. Many university representatives apparently were not aware of this diversity (see Appendix 7). While these differences may well have arisen due to differences in institutional foci and missions, there might not, in fact, be valid reasons for this heterogeneity. Such heterogeneity can serve to limit the options of community college students in course selection and serve as a source of considerable frustration. The Conference Chair will bring this problem to the attention of the SUS chairs who meet regularly to discuss matters of common concern.

Adding to the problem above, it was observed that there were often noteworthy variances between the transfer policies of universities, as revealed in the manual, Community College Counseling for Psychology (Appendix 7), and the working policies and practices, as determined by Dr. Davis in interviews with appropriate individuals at each university. These interviews were held at the request of Dr. Levy shortly before the conference. If anything, the actual procedures were much less restrictive and permitted more leniency in the acceptance of courses or credits than might be assumed from an examination of the widely distributed materials used for academic advising.

(8) Related to items 5 and 7 above, some participants were still unclear about the use of the term "equivalent" within the context of SCNS. The participants were informed that -- with the exception of graduate-level courses and courses in the -900 series -- courses bearing the same prefix and last three digits were to be treated as academically equivalent. That is to say, there is no assumption that such courses are identical, but rather, that for students who have completed a course at one institution who subsequently transfer to another, it should be assumed that they had covered such a comparable range and depth of materials that it would not be necessary to take the "equivalent" course again at the second institution. From discussions such as these, it seemed that, even after several years of preparation and use of the Statewide Course Numbering System, there are still some fundamental misunderstandings of the SCNS at the local levels.

(9) Some community college participants inquired as to the possible date that the universities would have ready new curricular guidelines for advisement that would reflect the changeover to the semester system. The university representatives were unable to respond unequivocally inasmuch as they had not themselves received clear guidelines to govern their curricular changes.

(10) The Conference Chair, Dr. Waggaman and Dr. Davis each observed a number of instances of community college and university representatives working out the mechanics of developing open communication channels for continuing discussions of idiosyncratic articulation problems.

APPENDIX C-12
1/81

REQUESTED INFORMATION OR SERVICE RELATED TO THE COURSE NUMBERING SYSTEM DATA BASE
Through August 1981

Requestor	Information Requested	Purpose of Request
Dr. Bruce Mitchell Coordinator, Sponsored Research and Special Studies Professsional Staff State University System	List of courses at FAMU, UF, & FSU in selected subject matter areas (SMA). Comparability reports for each SMA with FAMU as the primary institution.	To provide data to enable BOR to respond to request from HEW concerning overlap between FAMU, UF & FSU in Business and Education.
Senate Committee on Education	Selected Discipline Analysis Working Papers.	For use by Education Committee Staff
Sterling Bryant Administrators Educational Facilities Planning Department of Education	A complete inventory of courses.	To use in helping determine type of space needed for each teaching function--lecture, lab, studio, etc.--no matter where this occurs (high school, community college, university).
David Hernandez Chairman, Policy Council Professor of Education University of Central Florida	Listing of all undergraduate Law courses outside law school.	To provide information for Dr. Ransford Pyle, Coordinator of Allied Legal Services at UCF, for help in preparing a legal studies curriculum for presentation to American Bar Association and Florida Bar Association
Richard Konkel Department of Philosophy Florida International University Coordinator, Consortium, FIU, BRO, MDCC	Matrix of inventory of comparability of courses at FIU, Broward CC, and Miami Dade Community College in Criminal Justice & Management	To facilitate and expedite the work of the planning group for the proposed consortium. Goal is to share faculty, facilities, offerings. Course matrices will enable pinpointing most fruitful areas of cooperation.
Cecil Nichols S.E. Florida Education Consortium	Matrix of inventory of comparability of courses at FIU, BRO, MDCC. Request made to CNS following materials submitted to Richard Konkel	To facilitate and expedite the work of the planning group for the proposed consortium. Goal is to share faculty, facilities, offerings. Course matrices will enable pinpointing most fruitful areas of cooperation.
Morris Silverman Registrar Yeshiva University New York, New York	Six separate requests. First was for information on CNS. Remaining five were for specific subject matter area classification systems.	Yeshiva University is using the Florida Course Numbering System in toto as the vehicle for standardizing course numbers on its fourteen campuses.
James Humphrys Director, Employee Relations & System Planning Brevard Community College	Report showing frequency of courses by SMA and institution.	To respond to questions on curriculum raised by Board of Trustees of his institution.
Hilda Tinney Institutional Liaison Officer & Special Assistant to the Dean Of Faculties Florida State University	Print tape of the Course Equivalency and Distribution Directory for all disciplines.	To provide a tool for the university's community college recruiters. To enable them to focus upon recruiting community college students who have taken courses comparable to those at FSU. This may reduce academic attrition.
Barbara Wilkie Acting Vice President's Office University of Florida	List of undergraduate courses dealing with diagnostic skills in Speech Pathology	To use a basis for proposed undergraduate course at University of Florida

Requestor	Information Requested	Purpose of Request
Graduate Student Florida State University	General information regarding Course Numbering System.	Research for paper for graduate class.
Peter Iverson Graduate Student Florida State University	All course numbering data related to social work.	Doctoral dissertation.
Joan Hill Coordinator, Academic Programs State University System	Subject matter classification and Course Inventory Report for Nursing.	To provide information as part of BOR review of academic programs in Nursing.
Archie Johnston Director, Institutional Research Tallahassee Community College	Special report showing equivalent courses at Tallahassee Community College and Florida A & M University and Tallahassee Community College and Florida State University	To determine the extent of duplication between TCC and FSC and FAMU.
Jerry Bigham Computer Research Specialist University of Florida	Total course inventory file.	To determine whether the HEGIS codes on the course inventory differ markedly from the codes previously used for each course offered by the University and the number of credit hours affected for the Fall Quarter, 1977.
Hal Massey Dean Florida Keys Community College	Any available information on theatre courses. (Inventory, Profiles, selected new course transmittal forms and course syllabi and some catalog descriptions.)	To provide a model for a new Theatre program being developed at Florida Keys Community College
Paul Parker Associate Vice Chancellor Academic Programs State University System	Complete set of inventories for Foreign and Biblical Languages and Literature.	To provide a tool used by a team of outside evaluators for analyzing language programs in the universities.
Paul Parker Associate Vice Chancellor Academic Programs State University System	Complete set of inventories for Oceanography and Marine Technology.	To provide a tool used by a team of outside evaluators to analyze Oceanography and Marine Technology programs in the universities.
Edward Duffy Inst. for Higher Education University of Florida	Listing of all courses dealing with personal finance.	To help in a research project under the auspice of the Inst. of Higher Ed., University of Florida.
Cecil B. Nichols Workshop Coordinator Miami-Dade Community College	Course Equivalency & Distribution Directories for 16 subjects. Comparability Report.	Materials being used for the academic articulation workshops.
Harry Rudy Data Administrator Division of Community Colleges	Set of Mark IV Programs	To be used for maintenance and reporting of Community College A/O, HEGIS and USOE numbers.
Mr. George Purvis 3129 W. 25th Avenue Denver, Colorado	Printout, by college, of all Religion courses	To answer request for information on creative projects in teaching religion.

Requestor	Information Requested	Purpose of Request
Sterling Bryant Physical Facilities Department of Education	Lists of faculty members participating with the Course Numbering System at each community college.	To assist with planning of regional physical facility conferences at five community colleges.
Division of Community Colleges Department of Education	Which community colleges offer courses in a particular area of Ornamental Horticulture.	Referred to us by DCC. Student needed information for guidance in selection of a community college for attendance in this area.
Mr. Julian Hamilton Department of Commerce	Course inventories in the areas of Hotel, Restaurant & Tourism.	To determine which institutions provide programs in this area.
Mr. Roy Giehls Division of Vocational Education	Listing of all accounting courses, in order to compare transferability of accounting courses from UF to LCCC.	Student was moving from academic program to a Vo-Tech program and wanted to determine if some vo-tech courses were listed as common to academic courses.
Mr. Robert Clawson Kansas Legislature Division of Post Audit Topeka, Kansas	Structure of Florida's Course Numbering System. (Referred to us by National Center for Higher Education Management Systems)	Applications, expecially in assisting a legislature to determine what is actually taking place in education, overlapping, duplication and proliferation.
Dr. Hilda Tinney Special Assistant to the Dean of Faculties Florida State University	Distribution Directory for certain disciplines	To show matrix to general education committee at FSU for use as a counseling tool.
Dr. Winfield Jackson Academy for Educational Development Washington, D.C. (Consultant for Postsecondary Education Commission)	Overlap and comparability overview	Examples of how CNS data can be utilized for statewide view.
Angela Lupo, Program Review Specialist and Walter Turner, Coordinator, Interinstitutional Grants Division of Universities Florida Department of Education	Course Inventory Reports and Institution Course Lists for Criminology and Radio & TV Broadcasting	To assist BOR in program reviews of named areas.
Carmen Maristany, Miami Dade Community College and Laura Ritz, Broward Community College	Course Inventory Reports and Course Equivalency Profiles for Home Ec., Nutrition, Psychology and Education Systems	To help assess their home economics programs in relation to what other schools were offering.
Mr. James Fling, Coordinator, Adult/Continuing Education and Community Services Bureau of Program Support & Services Division of Community Colleges Florida Department of Education	Course Inventory of Personal Finance courses	To account for Personal Finance courses in Florida
Mr. Jeff Householder c/o Linda Laugen Educational Consultant Compensatory and Alternative Education	Course Inventory of all Education courses	To determine if the colleges of education are offering couress to help the teacher deal with the disruptive child

Requestor	Information Requested	Purpose of Request
Mr. Aaron Lucas MGT (Consulting Firm) Tallahassee, Fl.	Information showing how vocational courses can be compared to similar credit courses	MGT has received a contract from DOE to do an impact study on a legislatively mandated program to make certain vocational programs uniform wherever they occur--in vocational centers or community colleges
Dr. Jeaninne Webb Director, Office of Instructional Resources University of Florida Gainesville, Florida	Course inventory for Accounting, Finance, Management, Marketing and General Business courses	For Articulation Coordinating Committee regarding business transfer courses
Mr. Donald Main Vice President Tampa Ship Repair Tampa, Florida	Location of institutions with archaeology departments/courses who can identify and evaluate Peruvian potter at archaeological site	Identification and evaluation
Program For Afloat College Education U.S. Navy	FSU course list and course profiles for selected disciplines; data on completion rates; and diagnostic test availability in math	To improve accuracy of course selection and matching of courses and students in PACE aboard 8 Atlantic Fleet aircraft carriers
Sarah Pappas Associate Professor, Sociology Hillsborough Community College P. O. Box 22127 Tampa, Florida 33622	Comparative data concerning general education requirements in Florida's public community colleges and universities. Materials related to general information issues.	Background for participation in task force on general education
Dr. Etta McCulloch Consultant Health & Public Service Education Zora Neale Hurston State Office Bldg 400 W. Robinson Street, Suite 602 Orlando, Florida 32801	Course inventory and profiles for Criminal Justice	To assist in program review of Criminal Justice courses
Dr. James Fling, Coordinator Adult/Continuing Education and Community Services Bureau of Program Support & Services Division of Community Colleges Florida Department of Education	Inventory of Economics courses	To assist Community Service Advisory Committee
Dr. Joseph Howell Director of Education Southern College 618 E. South Street Orlando, Fl. 32801	Classification, Inventory and Profiles for medical receptionists, medical office practice, and medical transcription courses.	To compare medical office courses in State public institutions with those offered at Southern College
Mr. Ron Kimberling Associate Director of Admissions University of Southern California P. O. Box 77952 Los Angeles, California 90007	General information on SCNS and its applications. (Via David Brittain)	To assist in pursuit of a common course numbering system
Walter Turner Coordinator, Institutional Grants Florida State University System	Copies of the Discipline Analysis Working Paper on Criminology.	To assist in program review of Criminology by outside consultants especially in relation to articulation with community colleges

Requestor	Information Requested	Purpose of Request
Nil Whittington Department of Speech Communication Temple Junior College 2600 South First Street Temple, Texas 76501	Request referred to SCNS by BOR, requested information on "freely transferrable courses for speech communication majors."	To assist in presenting a core curriculum for speech communication in Texas
Dr. Ernest Beals Associate Director The College Board Suite 200 17 Executive Park Drive, N.E. Atlanta, Georgia 30329	General Information regarding SCNS.	To become familiar with the SCNS
Ms. Joyce Heap Student Trustee Joliet Junior College 1216 Houbolt Avenue Joliet, Illinois 60436	Information on how SCSN "solved the problem of common course numbering and naming."	To become familiar with the SCNS after hearing a presentation at the AACJC Convention.
Ms. Sharon Dunning Registrar Judson Baptist College 9201 Northeast Fremont Street Portland, Oregon 97220	General information regarding SCNS.	To become familiar with the SCNS after hearing a presentation at a PACRAO meeting.
Mr. Dick Gamble Division of Vocational Education	List of institutions offering Surveying courses.	To set up a meeting on Surveying.
Dr. John Waggaman Research Associate SCNS	Totals of different kinds of public universities.	Background of a report he is preparing.
Mr. Michael Mische Price-Waterhouse	Applications of the Course Numbering System to the K-12 CMIS	To ascertain potential of CNS for enhancing MIS and for applications to curriculum planning, continuity with other levels of education.
Dr. Harold Kastner Division of Community Colleges State Department of Education	Applications of the Course Numbering System to the Accountability standards of the Division of Community Colleges.	Use of CNS as a tool to enhance monitoring the accountability standards.
Dr. James Corsier, Supervisor Health, Nutrition, PE, Safety and Driver Education Division of Public Schools Florida Department of Education	Course inventories for Physical Education, Leisure, Health, Leisure & PE, Health Education and Safety	Background for report he is writing for statewide distribution on course offerings in his area of supervision at the elementary, secondary and college level throughout Florida.
Tina Ruggiero Masters Degree Student Mathematics The Florida State University	Applications of CNS to analyze math curriculum and comparability of community college and university math courses	Assignment by FSU Higher Education Department professor.
Dr. Myron Blee Division of Community Colleges 310 Collins Bldg.	Matrix for management & finance - microfiche prints from Sept. 80.	Articulation Coordinating Committee meeting.
Kern Alexander Institute for Educational Finance UF	Nursing inventory and institution list.	To do a cost analysis of individual Nursing courses at community colleges.
Mr. Theodore E. Marlowe State University of New York Agricultural & Technical College Canton, NY 13617	Information regarding Florida State's identification of common courses in Criminal Justice	Conducting a survey of Criminal Justice college courses offered in New York State in an attempt to classify similarities in course content.

REQUESTED INFORMATION OR SERVICE
RELATED TO THE COURSE NUMBERING
SYSTEM DATA BASE

Requestor	Information Requested	Purpose of Request
Dr. Marion Baker Valencia Community College	Names of University Chemistry Chairperson	For May 9th meeting of Florida Chapter of American Chemistry Society
Dr. Dennis Tesolowski FIU Dir. of Voc. Ed.	Subject Matter Classification; Course Inventory Report; Subject Matter Course Inventory Report; Course Equivalency Profiles	Study of Voc. Ed. courses in State of Florida for DVE.
Dr. Jacqueline Beck Allied Health Florida A & M University	Printouts (field review & course equivalency profiles) for areas related to Allied Health (Medical Records, Health Care Administration, Laboratory Technology, Physical Therapy, Respiratory Thearpy, APB).	To determine courses and course numbers for an allied health program to be established at Florida A & M University.
Mary M. Knight Occupating Consultant Region 1 Health & Public Service Division of Vocational Education	Course numbering system data. Allied Health programs and data related to Articulation.	Preparation of propectus for doctoral dissertation.
Elizabeth Phillips Program Review Specialist Board of Regents	Course information related to Senator Gordon's proposal to require 4 courses in English and 2 in math.	Assignment by Vice Chancellor for Academic Affairs, Board of Regents, to prepare relevent data for State Board of Education meeting on this issue following morning.
Mildred Lennertz Home Economics Florida Junior College at Jacksonville	Course inventories, profiles, institution course lists for Home Economics, Nutrition. Other selected disciplines also requested.	To be used by participants in a 3 year project to design a model curriculum for all home economics education in Florida's Community Colleges.
Taylor Cullan Florida Board of Regents	Listing of courses in movie-making, movie management, etc.	not stated
Rhonda Warh Bureau of Exceptional Child Education Department of Education	Listing of courses in Speech Pathology & Audiology.	To assist in updating certification standards.
Dr. Luis Escovar Psychology Department Florida International University	Printouts for Psychology - with instructions on how to read the information. Listing of all Florida International courses in Psychology.	To help with semester conversion and placement of new courses.

8/81

REQUESTED INFORMATION OR SERVICE RELATED TO THE COURSE NUMBERING SYSTEM DATA BASE

Requestor	Information Requested	Purpose of Request
Mr. Peter Stone Assistant Prof. Architecture Florida A & M University	Listing of all Florida A & M University architecture courses.	To assist in solving semester conversion problems.
Mr. Ed Velez C/O Segarra 8487 Hattituck Circle Orlando, FL 32807	Field review printouts on film.	To determine university programs in Florida that offer the largest range of courses in film.
Computer - Science Department University of Florida	Field review printout for computer science	The chairman of the Computer-Science Department requested the printout. Did not state a specific purpose.
Ms. Durant Dean's Administrative Assistant College of Medicine University of South Florida	Course Inventory for medicine.	To use as reference when placing courses.

9/77

Inquiries From Out-of-State Institutions and Agencies

A number of institutions and agencies have expressed an interest in the system. Some have sent representatives to Tallahassee for briefings on the system.

The list below does not include those out-of-state institutions and agencies from whom telephone inquiries have been received.

Arizona, Board of Regents (Pheonix)
Arkansas, University of Arkansas (Fayetteville)
California, California State University (Fullerton)
California, University of Southern California (Los Angeles)
California, University of California (Berkeley)
California, Modesto Junior College (Modesto)
California, California State University (Chico)
Colorado, Arapaho Community College (Littleton)
Colorado, Metropolitan State College (Denver)
Colorado, NCHEMS, Western Interstate Commission for Higher Education (Boulder)
Colorado, State Board for Community Colleges and Occupational Education (Denver)
Colorado, Colorado Commission on Higher Education (Denver)
Connecticut, American Institute For Foreign Study (Greenwich)
Connecticut, Board of Trustees of Regional Community Colleges (Hartford)
Connecticut, University of Hartford (West Hartford)
Georgia, Georgia State University (Atlanta)
Georgia, Office of the Governor, Office of Planning & Budge
Georgia, Southern Regional Education Board (Atlanta)
Hawaii, University of Hawaii (Honolulu)
Illinois, Illinois Community College Board (Springfield)
Illinois, Rockford College (Rockford)
Indiana, Taylor University (Upland)
Iowa, North Iowa Area Community College (Mason City)
Kansas, Johnson County Community College (Overland Park)
Kentucky, Council on Higher Education (Frankfort)
Kentucky, University of Kentucky (Lexington)
Louisiana, Board of Trustees for State Colleges and Universities (Baton Rouge)
Louisiana, Louisiana Tech University (Ruston)
Louisiana, Legislative Fiscal Office (Baton Rouge)
Louisiana, Board of Regents (Baton Rouge)
Maine, University of Maine (Portland)
Maryland, Maryland Council for Higher Education (Annapolis)

Inquiries From Out-of-State Institutions and Agencies

(continued)

Michigan, Macomb County Community College (Mt. Clemons)
Michigan, Andrews University (Berrien Springs)
Mississippi, Mississippi Association of Colleges,
        Transfer Guidelines Committee (University)
Missouri, Central Missouri State University (Warrensburg)
Nebraska, Creighton University (Omaha)
New Hampshire, Department of Education, Division of
        Post-Secondary Education (Concord)
New Jersey, Bookdale Community College (Lincroft)
New Jersey, Department of Education (Trenton)
New York, Council of Specialized Accrediting Agencies (New York)
New York, State University of New York at Stony Brook
New York, The City University of New York (New York)
New York, Erie Community College (Buffalo)
North Dakota, North Dakota State School of Science (Wahpeton)
Ohio, Capital University (Columbus)
Ohio, The College of Steubenville (Steubenfille)
Oklahoma, American Institute of Constructors (Oklahoma City)
Oregon, Oregon Institute of Technology (Klamath Falls)
Oregon, Oregon State Board of Higher Education (Eugene)
Tennessee, Chattanooga State Technical Community College
        (Chattanooga)
Texas, The University of Texas System (Austin)
Texas, The University of Texas at Arlinton (Arlington)
Utah, Utah System of Higher Education, State Board of Regents
        (Salt Lake City)
Virginia, Virginia Department of Community Colleges (Richmond)
Washington, Council for Postsecondary Education (Olympia)
Washington, State Board for Community College Education (Olympia)
Washington, Washington State University (Pullman)
Washington, Office of State College & University Business Affairs
        (Olympia)
Washington, D.C., American Chemical Society
Washington, D.C., Department of Health, Education & Welfare
Washington, D.C., American Association of Collegiate Registrars
        and Admissions Officers
West Virginia, Fairmont State College (Fairmont)
Wyoming, The University of Wyoming (Laramie)
Wyoming, Wyoming Higher Education Council (Cheyenne)
Wyoming, Central Wyoming College (Riverton)

APPENDIX D

SURVEY OF INSTITUTIONAL LIAISON OFFICERS

Contents

1. Procedures Used For the Survey
2. Letter and Questions Mailed Liaison Officers Prior to any Telephone Interview
3. Lists of Community College and University Liaison Officers

SURVEY OF INSTITUTIONAL LIAISON OFFICERS*

The survey was organized, designed and conducted during the period June 5 through June 30; however, several community colleges sent in responses and usage lists through July 31, 1981. Preceding the design phase was the identification of surveys conducted at colleges and universities about the benefits or uses of course numbering data, taxonomies, etc. Several of the studies provided ideas about topics to be included and the kinds of reactions to be expected. The survey of these persons was designed to confirm or disconfirm use of particular topics and questions in a later statewide survey of faculty and chairpersons--which it did quite well. Even the nonresponses were informative.

To obtain as much insight as possible from this first survey, an explanatory letter of two and one-half pages was sent to each of the 28 community college and 9 university liaison officers. Attached to the letter was a set of "Questions for Liaison Officers Probing Institutional Usages of, and Concerns About, the Statewide Course Numbering System." A second attachment titled "Actual Users of the Products or Services of the Statewide Course Numbering System," contained a list of functional job titles, space for the name of the person actually using the SCNS data, and a column asking for the frequency of usage. A third attachment was a work sheet for tbe liaison officer. These documents follow this explanatory statement.

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*Conducted by John S. Waggaman, principal investigator.

It was explained to the liaison officers in the cover letter and footnoted on the first page of the probing questions that the principal investigator would telephone them at some mutually convenient time to review the questions and discuss any other related issues. Carrying out this strategy was very helpful, but could not be completed for all community colleges because they did not work on Fridays; for the universities, summer vacations made several persons unavailable, but two later returned telephone calls.

The principal investigator had made arrangements to attend the annual June meeting of the Florida section of the Association of Institutional Research; announcements and handouts like those used in this survey were to be given to members asking their aid in finding local studies of the SCNS products and services. Unfortunately, some bureaucratic rule was invoked by the Department of Education to prevent that travel, even though the Agreement between the Department and Florida State University authorizing the study clearly said the Department would pay all travel expenses. In any event, because this restriction was learned only a few days before the conference, no substitute arrangements were possible and that aspect of data collection was abandoned. Whether any other studies about local use of SCNS products or services would have been found in unknown; presumably the project was not fatally injured. The survey of the liaison officers was carried to completion beneficially. Oh, the vagaries of the evaluation research enterprise.

A list of the names and addresses of the Liaison Officers was obtained from SCNS. The secretarial staff of SCNS typed, reproduced, separately addressed and mailed the survey materials June 17 and 18, 1981. Two days later, calls began coming in from community college officials with data, information and recommendations. Calls were made each half day with only about one interview made from every four to six back-and-forth calls. The interviews lasted anywhere from 20 to 75 minutes. It appeared that the less directly involved a liaison officer was with course numbering matters, the shorter the interview. However, all who were interviewed were most helpful, courteous and relatively open about what normally might be considered sensitive issues, e.g. reports about the reactions of local administrators to SCNS.

Information was compiled from the interviews or from the mailed-in materials; most of the latter were usage lists, but in some instances they included the survey questionnaire with written answers and comments. Some helpful information was received from 15 community colleges. A 16th institution was represented by a scribbled note from a person who knew nothing about SCNS; this institution has had no stable relationship with SCNS, for its previous two liaison persons no longer had any connection with the college. A 17th person wrote that he was only on the job for a few days and couldn't respond. Of the 16 colleges supplying some or all information desired, 9 represented the largest colleges which supplied a very large majority of the transfer students to the universities; these were Brevard, Broward, FJC-Jacksonville, Miami-Dade, Palm Beach, St. Pete, Santa Fe, Tallahassee and Daytona Beach. (Missing from the group of larges colleges with transfer students was Hillsborough, Pensacola and Valencia.) Other colleges willing and helpful were: Central Florida, Gulf Coast, Indian River, Manatee, Okaloosa-Walton and Seminole.

Of the universities, five were especially helpful: FAU, FSU, UCF, USF, and UWF. One other, UNF, sent in a list of users which was helpful. Contact was made with an assistant at FAMU who said the office didn't receive the first mailing; a second was sent, but no response resulted. (Some faculty reported not receiving their questionnaires in another survey). FIU and UF were called several times, with no calls returned. The UF liaison officer was just returning from vacation, or out for the day and never returned any of four calls; nor did a fifth call to the assistant to the liaison officer bring any responses either. (However, a substantial numberof UF faculty task force members and department chairpersons responded to a statewide survey of faculty.) FIU was apparently without anyone designated as a liaison officer at this time.

All who responded to this survey attempted to answer all of the questions and some volunteered answers to issues raised during the informal give-and-take of the telephone interviews. However, some of the liaison officers knew little about SCNS beyond their own operations within their institution. In a few instances, the dean of occupational-vocational programs was the liaison officer and seemed to know little about the use of SCNS materials in the college transfer programs. At the other extreme was the liaison officer who occupied a very responsible position in the college or university, but knew very little about course numbering; he always had an assistant who performed the technical work. Discussions with three of these assistants indicated they were well informed about SCNS, having learned the nuances of the system, and knew how to apply them to the diverse needs of their institution.

APPENDIX D-2

STATE OF FLORIDA
DEPARTMENT OF EDUCATION
TALLAHASSEE 32301

RALPH D. TURLINGTON
COMMISSIONER

Statewide Course Numbering System
Collins Building, Room 108
(904) 488-6402/6406
SUNCOM: 278-6402/6406

June 17, 1981

(Letter sent individually to each university and community college SCNS institutional liaison officer)

Your role as liaison between your institution and the Statewide Course Numbering System makes you a prime source of information for an evaluation study of this System. Through this letter I hope to solicit your support, coorperation and input so as to insure that an accurate study is conducted.

The Florida State University, under contract with the Florida Department of Education, has hired me to conduct an evaluation study of the Statewide Course Numbering System. Having evaluated and critiqued the discipline course inventories for the past four years makes it possible for me to structure a thorough investigation. However, it is terribly important that I obtain data and information from as many institutional administrators, at all levels, about the strengths and weaknesses of the Statewide Course Numbering System.

To begin this research I first need to obtain a copy of any reactions or evaluation studies conducted at your institution about the System. These could be informal reports (e.g., memoranda), the results of surveys by faculty, student government reports, official institutional evaluation or follow-up studies. Both critical and non-critical reports are sought. Please inquire--send copies of this letter, if you like--of your registrar, heads of faculty senate and UFF chapter (if you have one), student government officers and any other persons you think might have conducted or know of evaluations conducted locally about the System. It is not necessary to inquire of deans or chairpersons because I expect to formally survey them later on. However, if such persons were in charge of institutional evaluations, please include them. Please mail these studies to me at the above address, as soon as you can.

Second, I need to hear your reactions to a series of probing questions about the System. A copy of the questions is attached. I will telephone you at some mutually convenient time to hear your reactions to these questions. In this way I hope to obtain reliable information about the most important issues related to this System. From your responses and others obtained in these early inquiries, a survey instrument will be constructed which will be sent statewide to academic administrators, department chairpersons and some faculty.

Third, I need to obtain from you any suggestions of procedures which will help identify important issues. For example, would it be worthwhile for me, or a research assistant, to telephone a sample of chairpersons or deans? Are there some persons who might be very helpful if interviewed personally? (With such a short summer term, I may not be able to interview personally many persons.) What else might I do to obtain reliable information? I would appreciate your suggestions when I telephone.

Fourth, is it possible to obtain a list of the administrative and support staff who regularly use course numbering materials? Although the names of persons are important (so I can survey them later), what is most desirable are the functional job titles or brief job descriptions of these persons. A list of general job titles is attached; please add any titles not included. Space is left for a position-holder's name and the frequency with which he/she may use any of the System materials or services. Note that the focus is on users of the System, which includes clerks as well as administrators. It would be most helpful if copies of the attached list were circulated to any of these persons at your institution, with a request that they add names of any other persons whom they know to use the course numbering materials or services. If you could compile a single list of users with their titles and names at your institution and return it to me by June 29 it would make a signal contribution to the conduct of this study. If it would be easier to telephone me with this information, please do that at your earliest convenience.

I know these data requests place an extra burden on you; however, this study can develop for you a reliable set of data about your institution's use of the System, which information probably has not ever before been gathered systematically. In any event, the data and information you provide will be crucial to the completion of the study, one which should be objective and fair.

A copy of the final report from this study will be sent you. From this study may emerge a variety of recommendations; they likely will be focused on the means by which the problems found can be ameliorated. So, if you have suggestions for correcting any experienced or perceived difficulties, please send me your list of problems and solutions.

June 17, 1981
Page three

The Florida State University, where I am appointed, is on a very short summer calendar this year, so I hope you can respond to these requests by Monday, June 29. Because I'm seeking a quality response from you, please feel free to telephone me at any time or add any other information you want to send me. The sooner you can send me any information the greater impact it is likely to have on the formal surveys and the final recommendations of the study.

I thank you in advance for any assistance you may provide and look forward to discussing my study with you in the near future.

Sincerely,

John S Waggaman

John S. Waggaman
Principal Investigator and
Associate Professor of
Higher Education

JSW/as

Enclosures (3)

cc: Michael A. DeCarlo, Director, SCNS
Cecil Golden, Associate Deputy Commissioner, DOE
Lee G. Henderson, Director, DCC
Barbara Newell, Chancellor, BOR

Questions for Liaison Officers
Probing Institutional Usages of, and Concerns About, the Statewide Course Numbering System*

1. Have the products from the System (for example, the printed or microfiche discipline course listings, or the search output of the computerized course inventory from a terminal) been:
   - a. Adequate to your needs?
   - b. Available when needed?
   - c. Of sufficient quality to be reliable?
   - d. Distributed widely?
   - e. Used extensively? By whom?
   - f. Known about by faculty and students?
   - g. Made available to faculty and students?
   - h. Moderately easy to interpret? Difficult?
2. In response to your requests for service, information, or specific products, have the System staff been:
   - a. Helpful?
   - b. Knowledgeable?
   - c. Timely in response?
   - d. Bureaucratic?
   - e. Dissembling?
   - f. Misleading?
   - g. Argumentative?
3. Have the forms and information required of new institutional courses by the System:
   - a. Asked for sufficient information for correct classification?
   - b. Asked for too much information?
   - c. Caused delays in course approval?

---

*For use in a telephone interview by John Waggaman, evaluator of System.

d. Made course approval more predictable?

e. Stimulated curriculum analysts and committee members to make better academic decisions?

4. Has the System of classified courses, or the discipline taxonomies, been used:

a. Throughout your institution's catalog?

b. For academic program planning or review?

c. In analysis of the curriculum?

d. By faculty curriculum committee members?

e. By departments for all of their courses?

f. For planning or counseling student majors?

g. For advising lower division students?

h. To determine whether neighboring institutions are offering the same course?

i. For determining which institutions have the greatest discipline course specialization?

j. To determine whether transfer and native students are treated similarly?

k. To determine the extent to which transfer students must repeat courses?

l. On all student transcripts and other institutional records and reports?

5. What are the most common complaints (or frustrations) about the System?

a. Having to learn new four digit course numbers?

b. Having too many alpha course prefixes?

c. Departments losing control of their subject matter?

d. Too many specialized courses?

e. Courses equated that are not comparable?

f. Wrong number and/or prefix assigned a course?

g. System requirements used to restrict curriculum development?

h. System course numbers are thought to confuse higher educational administrators out-of-state?

i. No necessary reason why two courses in the same subject area should be equivalent among or between two colleges or universities?

j. Courses can't be comparable:

   (1) unless 100% identical as to content?

   (2) when subject matter changes regularly?

   (3) because of calendar conversion at the universities?

   (4) when prerequisites are different for same course at different institutions?

6. How have institutional officials, faculty and others reacted to complaints about the System from within the institution, i.e., from students, faculty, administrators?

   a. Investigated the complaints?

      (1) Checked to see if several persons had the same problem?

      (2) Attempted to identify and collect hard facts?

      (3) Created a committee to conduct a study?

      (4) Checked with you, the institutional liaison officer?

      (5) Checked with System staff?

   b. Forwarded them to external sources?

      (1) System director, staff?

      (2) Staff of BOR or Division of Community Colleges?

      (3) Commissioner of Education?

      (4) Legislators?

      (5) Professional accredition officials?

      (6) Regional accreditation officials?

      (7) Professional discipline associations?

   c. Petitioned external sources for help, e.g., for termination of the System?

   d. Neither encouraged or discouraged complaints and essentially stayed aloof from conflicts about the System?

e. May have suggested that persons with complaints should be patient, "for this System too will pass"?

f. Worked actively to restrict and/or terminate the System?

g. Worked actively to correct misunderstandings about the System?

h. Worked actively to explain that internal institutional procedures--whether college, school, division, department or program--may have been responsible for problems attributed to the System?

i. Conducted, or arranged for the conduct of, workshops to explain the procedures for using the System course numbers, etc.?

7. What are the most common benefits attributed to the System?

a. Helps students:

(1) avoid having to retake courses already passed?

(2) to develop major programs?

(3) to select institutions with greatest program specialization?

b. Enables curriculum analysts to see clearly:

(1) where duplicate courses exist?

(2) the extent of course proliferation?

(3) the subject speciality areas not covered by courses (locally)?

(4) where subject matter specializations and supporting programs are located in the state?

c. Enables the institutional members of regional or other consortia to structure a comparison of educational programs of any kind?

d. Provides a means for structuring studies of:

(1) educational costs?

(2) distribution of equal educational opportunity programs?

(3) types of physical facilities available and needed?

(4) the extent to which an institution has an appropriate quantity and quality of courses to support a program specialization, concentration, major or degree authorization?

e. The System of classification is determined by faculty?

f. Permits expansion of curriculum without having to renumber all existing courses?

g. By systematically comparing programs with System data, the "natural" non-comparability of programs can be demonstrated effectively?

h. Facilitates communication by faculty at different institutions in the same discipline?

i. Permits institutional trustees to oversee the management of the curriculum without involving them unnecessarily in academic matters?

j. Enables Florida's private institutions to improve their articulation with all public institutions?

k. Provides state and postsecondary officials with:

(1) an inventory of all courses classified by subject matter and identified by institution?

(2) a uniform classification system of courses thereby making real comparability assessments possible?

JSW/as

6/17/81

ATTACHMENT 2

Actual Users of the Products or Services of the Statewide Course Numbering System*

June 1981

____
Institution

Functional Title	Name of Staff Member	Frequency of Usage		
		Often	Sometimes	Never
Registrar				
Admissions head				
Articulation officer				
Recruitment official				
Transcript evaluator				
Records clerk				
Catalog editor				
Orientation officer				
Counselor-academic				
Counselor-career				
Counselor-placement				
Coordinator, follow-up				
Budget officer				
Institutional researcher				
Planning officer				
Physical space/ analyst/planner				
MIS coordinator				
Reports coordinator				
Assistant to __________				
Chairperson, Curr. Comm.				
Member, Curriculum Comm.				
Secretary to Curr. Comm.				
Administrative secretary				
Departmental secretary				

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*To be compiled by institutional liaison officer to System and mailed or telephoned to John Waggaman, System evaluator.

Work Notes For Responses*

1. Studies or reactions by faculty, students or administrators about Course Numbering System not readily available to evaluator:

   Name of study, report(s):

   Is copy available?   Sent to System Office?

   Second study, etc. (Use reverse side if needed):

2. Suggested procedures to insure that evaluation is objective, accurate and reliable:

3. Other problems and recommendations for improving the System:

4. Any other comments about this evaluation project or the System:

---

*Information can be made available when John Waggaman calls about questions in Attachment 1.

FLORIDA

DEPARTMENT OF EDUCATION

STATEWIDE COURSE NUMBERING SYSTEM

COMMUNITY COLLEGE INSTITUTIONAL LIAISON OFFICERS

Brevard Community College Cocoa, Florida 32922	Dean Nelson Donnell Dean, Educational Planning (305) 632-1111 Ext 396
Broward Community College 225 East Las Olas Boulevard Ft. Lauderdale, Florida 33301	Mr. Glen Rose Registrar (305) 467-6700
Central Florida Community College P.O. Box 1388 Ocala, Florida 32670	Mr. Robert Ritterhoff Dean of Academic Affairs Suncom: 340-1111
Chipola Junior College Marianna, Florida 32446	Dr. James A. Lewis Academic Dean (904) 482-4935
Daytona Beach Community College P.O. Box 1111 Daytona Beach, Florida 32015	Mr. Carl Shafer Registrar Suncom: 362-1476
Edison Community College Fort Myers, Florida 33901	Dr. H. J. Burnette Vice President (813) 481-2121
Florida Jr. College at Jacksonville 111 West Adams Jacksonville, Florida 32205	Dr. Bruce Cusack District Director, Curriculum Development ~~1506 Universal Marion Building~~ Suncom: 269-1273 (904) 385-1812
Florida Keys Community College Key West, Florida 33040	Mr. William Rudy Registrar (305) 296-9081
Gulf Coast Community College 5230 W. Highway 98 Panama City, Florida 32401	Dr. Robert McSpadden Dean of Instruction (904) 769-1551
Hillsborough Community College P.O. Box 22127 Tampa, Florida 33622	Dr. Penny Noriega Reports Coordinator SUNCOM: 555-1215

Indian River Community College 3209 Virginia Avenue Fort Pierce, Florida 33450	Dr. Rudolph P. Widman Educational Services Suncom: 466-1202 (305) 464-2000
Lake City Community College Lake City, Florida 32055	Mr. Alvin Dana Registrar (904) 752-1822
Lake-Sumter Community College Leesburg, Florida 32748	Mr. Lester R. Ruth PPBS Coordinator (904) 787-3747
Manatee Junior College 26th Street West Bradenton, Florida 33505	Mr. Gil McNeal Dean of Admissions & Records (813) 755-1511
Miami-Dade Community College Miami, Florida 33156	Mr. Samuel LaRoue, Jr. Coordinator, Admissions & Registration Support Services Suncom: 476-1345 (305) 596-1345
North Florida Junior College Highway 90 and Turner Davis Drive Madison, Florida 32340	Dr. Walter L. Bishop Dean of Academic Affairs (904) 973-2288
Okaloosa-Walton Junior College Niceville, Florida 32578	Dr. Earl Gulledge Dean of the College (904) 678-5111
Palm Beach Junior College 4200 Congress Avenue Lake Worth, Florida 33460	Dr. Paul W. Graham Dean of Academic Affairs (305) 965-8000
Pasco-Hernando Community College 2401 State Rd. 41, N. Dade City, Florida 33525	Mrs. Marjorie A. Sugg Director Academic Programs (813) 847-2727
Pensacola Junior College Pensacola, Florida 32504	Dr. C. Noojin Walker Vice President for Academic Affairs (904) 476-5410
Polk Community College 999 Avenue H., N.E. Winter Haven, Florida 33880	Mr. Francis J. Stephenson Director of Career Education Suncom: 580-1244

Santa Fe Community College P.O. Box 1530 Gainesville, Florida 32601	Mr. Russell Gilbert Coordinator, CNS Office of Vice President, Academic Affairs Suncom: 352-1279
Seminole Community College Sanford, Florida 32771	Dr. Joseph B. White, Jr. Dean of Instruction (305) 323-1450
South Florida Junior College Avon Park, Florida 33825	Mr. Wilford Beumel Dean of Instruction Suncom: 550-1120 (813) 453-6661
St. Johns River Junior College 5001 St. Johns Avenue Palatka, Florida 32077	Mr. Thomas C. Rogero Dean of Academic Affairs (904) 328-1571
St. Petersburg Junior College P.O. Box 13489 St. Petersburg, Florida 33733	Mrs. Naomi Williams Director of Admissions Suncom: 584-0011 (Ex. 247) (813) 546-0011
Tallahassee Community College 444 Appleyard Drive Tallahassee, Florida 32304	Dr. Edward D. Jackson Dean of Instruction (904) 576-5181
Valencia Community College P.O. Box 3028 1800 South Kirkman Road Orlando, Florida 32802	Mr. Charles H. Drosin Director of Registration and School & College Relations (305) 299-5000

FLORIDA

DEPARTMENT OF EDUCATION

STATEWIDE COURSE NUMBERING SYSTEM

UNIVERSITY

INSTITUTIONAL LIAISON OFFICERS

Florida A & M University Tallahassee, Florida 32307	Mr. Hardy Paul Director, Records and Registration (904) 599-3115
Florida Atlantic University Boca Raton, Florida 33432	Mr. George W. Petruff Director of Records and Registration Suncom: 463-2204/05
Florida International University Tamiami Trail Miami, Florida 38199	Dr. Ralph Hogges Director, Student Affairs Suncom: 441-2396
Florida State University Tallahassee, Florida 32306	Dr. Hilda Tinney Special Assistant to the Dean of Faculties (904) 644-6876
University of Central Florida Alafaya Trail P.O. Box 25000 Orlando, Florida 32816	Dr. John R. Bolte Associate Vice President, Academic Affairs Suncom: 345-2351
University of Florida Gainesville, Florida 32611	Dr. Gene Hemp Associate Vice President, Academic Affairs Suncom: 622-1301
University of North St. Johns Bluff Road South P.O. Box 17074 Jacksonville, Florida 32216	Ms. Margene Green Director of Records & Registration Suncom: 661-2626
University of South Florida 4202 Fowler Avenue Tampa, Florida 33620	Dr. William H. Scheuerle Associate Vice President, Academic Affairs Suncom: 574-2154

Institutional Liaison Officers--Continued

University of West Florida Pensacola, Florida 32504	Mr. Phillip Campbell University Registrar Suncom: 251-1231

APPENDIX E

SURVEY OF FACULTY CHAIRPERSONS AND SCNS TASK FORCE MEMBERS

Contents

1. Faculty Chairperson Survey Procedures
2. Letters Accompanying Questionnaires
3. Survey Respondent Population Rates
4. Questionnaire with Frequency of Responses

FACULTY-CHAIRPERSON SURVEY PROCUDURES

The questionnaire designed for the faculty survey was created after examination of those used in earlier surveys. The best one found was used on the Communications faculty of FSU in 1980. A variety of questions were used to learn the extent of information about SCNS held by faculty.

The faculty surveyed were selected from the SCNS lists of task force members and from the lists of persons who attended the workshops for new department chairpersons in Florida's nine universities. Chairpersons were felt to be faculty who, with special responsibilities for course and curricular matters, would be most likely to be familiar with SCNS products and services. Task force faculty with several years service were selected mostly from the task forces with large undergraduate course listings. An effort was made to select faculty so that all nine universities would be represented, the relative success of which can be seen in the data listed in Appendix E-3. The selections were made in the presence of the SCNS staff coordinator who helped identify experienced persons; when the staff gave a warning about the negative attitude of some senior persons, this characteristic was ignored in favor of experience. Only a few persons were actually identified with this combination.

The SCNS support staff typed (several versions of) the questionnaire and the address labels and mailed the materials. They were sent out July 10 and repeated for nonrespondents July 27, 1981. The letters accompanying the questionnaires appear in Appendix E-2.

The open-ended items on the questionnaire were coded by the principal investigator, the remaining items by the project research assistant. She and the head secretary entered the data direct to a computer tape file. The data were processed using SPSS at the FSU Computing Center. The frequencies or percentages of responses to each item appear on the questionnaire in Appendix E-4.

STATE OF FLORIDA
DEPARTMENT OF EDUCATION
TALLAHASSEE 32301

RALPH D. TURLINGTON
COMMISSIONER

APPENDIX E-2

July 10, 1981

MEMORANDUM

TO: Faculty Colleagues in the Nine Public Universities of Florida

Jack Waggaman

FROM: John S. Waggaman, Principal Investigator and Associate Professor of Higher Education

SUBJECT: Evaluation Study

The attached questionnaire personally addressed to you is part of an evaluation study of the Statewide Course Numbering System (SCNS). The Florida State University, under contract with the Florida Department of Education, has hired me to conduct the study this summer. As you know, the summer quarter is unusually short for us this year, so I need your valued input as soon as possible.

Please help make this an objective and thorough study by completing the attached questionnaire. It will take only 15-20 minutes. To make this study objective it is desirable that you respond forthrightly, whether or not you have been favorably, unfavorably or indifferently disposed toward the SCNS. Your experience and judgment are important for a broad guage assessment of this System.

Please mail the completed questionnaire by July 20th if at all possible. A return addresss label is included. If you would like a copy of the results from this survey, or of the entire evaluation report, please so indicate when you return the questionnaire.

I look forward to receiving your responses in my mail by July 23. Thanks for your willingness (I hope) to participate.

JSW/as

Attachment

Affirmative action equal opportunity employer

STATE OF FLORIDA
DEPARTMENT OF EDUCATION
TALLAHASSEE 32301

RALPH D. TURLINGTON
COMMISSIONER

July 27, 1981

M E M O R A N D U M

TO: Faculty Colleagues Previously Surveyed

Jack Waggaman

FROM: John S. Waggaman, Principal Investigator,
Evaluation Study, Statewide Course
Numbering System, Room 108, Collins Building,
Tallahassee, Florida 32301

Last July 10 I sent a personally addressed questionnaire to you as part of an evaluation study of the Statewide Course Numbering System. Although our desired return date was a week ago, I would still like to receive your responses. I need your reactions to insure that a thorough and objective study is conducted.

Would you complete the survey instrument and return it to me as soon as you can? You can mail it back or send it by BOR Courier, using the mailing label attached to the July 10 memorandum and questionnaire, or use the mailing address above. The sooner the better, but a little late is OK.

JSW/as

Affirmative action/equal opportunity employer

APPENDIX E-3

SURVEY RESPONDENT POPULATION RATES

State Univ.	Number of Full-Time Faculty*	%	Number of Faculty Surveyed**	%	Number of Usable Responses***	%
FAMU	289	5.3	26	8.5	5	2.6
FAU	250	4.6	20	6.5	14	7.3
FIU	343	6.3	29	9.4	19	9.8
FSU	975	18.1	62	20.2	42	21.7
UCF	339	6.3	34	11.1	24	12.4
UF	1985	36.7	57	18.6	39	20.2
UNF	141	2.6	15	4.9	10	5.2
USF	894	16.6	44	14.3	28	14.5
UWF	188	3.5	20	6.5	12	6.2
	5404	100.0	307	100.0	193	100.0

---

*From the 1979-80 EE06 Report as listed in the 1979-80 Fact Book of the SUS, March 1, 1981, Figure 11, p. 58.

**Includes some administrators (deans) who held faculty appointments.

***Ten unusable responses were received.

JSW
(9-81)

APPENDIX E-4

FACULTY-CHAIRPERSON SURVEY

For an Evaluation Study of the
Statewide Course Numbering System

193 respondents Name	V3 9 universities* Institution
V4 V5* Rank & Title	V1 94 listed * Department
V2 78 listed * Discipline	V8 56.5% identified* Speciality: subject matter alpha prefix(s) of you sub-discipline(s).
V6 * (List) (For Study) V7 * (Stat)	*=see page 1-A following. V=variable; data coded separately.

This survey is part of a study to evaluate the Statewide Course Numbering System. You are asked to participate because of your role in your department or because of your service on a discipline task force, or both. Your responses will help insure that this is a complete and objective study.

Please complete each question below to the best of your experience and understanding. When finished, mail the questionnaire, using the peel-off address label. Thank you for your cooperation.

JSW 7/81.

1. Have you served as, or been involved in, any of the following (check or X all that apply):

V9 a. 59.6 current department chairperson?

V10 b. 14.0 previously, but not now a chairperson in this department?

V11 c. 61.7 attended a workshop(s) for new department chairpersons conducted by Dr. Allan Tucker (supported by the Kellog Foundation of ACE)?

V12 d. 34.2 member of a course numbering discipline task force?

V13 e. 17.1 coordinator of a discipline task force currently?

V14 f. 3.1 formerly a task force member or chairperson?

X g. -- member of a statewide committee or policy council for SCNS?

V15 h. 13.0 served previously as a dean, provost or in any other institutional administrative position?

V16 i. 16.6 currently surving as an administrator?

X=poor/no data; not used.

1-A

Variable(V) 1: 94 departments listed

V2: 78 disciplines listed

V3: universities-% of respondents in each

FAMU	2.6	FSU	21.2	UNF	5.2
FAU	7.3	UCF	12.4	USF	14.5
FIU	9.8	UF	20.7	UWF	6.2

V4: Rank of respondents:

6.2	no response (N.R.)	29.5	associate professor
1.0	instructor or less	57.0	full professor
5.7	assistant professor	0.5	other

V5: Title of respondents:

28.0	N.R.	2.1	assistant dean	7.2	dean
51.3	department chairprsn	4.7	associate dean	2.1	other
4.7	director of program				

V6: List from which respondent's name selected:

38.2 SCNS task force members
49.2 attended workshop for new department chairpersons
12.4 on both lists

V7: Status of respondents/workshop attenders

29.4 received SCNS info
31.5 did not receive SCNS info

V8: Percent who listed an alpha prefix of their Speciality:

42.5	only one	1.6	4-5 listed
6.2	2-3 listed	6.2	6+ listed
28.5	none	15.0	comment only

V17 2. Has your department's faculty or staff used computer printouts, microfiche or other products of the SCNS?

2.1 N.R. 3.1 yes, no freq.

a. 79.8 Yes. Frequency of use: (1) 9.3 often; (2) 38.9 sometimes; (3) 28.5 infrequently.

b. 18.1 No. Go to question 4.

3. Have you or your collegues or support staff used SCNS products to (check all that apply): 19.2% N.R.

V18 a. 21.8 counsel students?

V19 b. 12.0 find a number for a new or revised course?

V20 c. 23.3 analyze the curriculum in your discipline?

V21 d. 48.7 find out the courses offered by other departments/institutions in your discipline?

V22 e. 24.9 check the courses in a related discipline?

V23 f. 3.6 other: 2.1 comment; 1.0 as TF mbr; 0.5 negative reaction.

V24 4. Has anyone in your institution notified you in the last two or three years that computer printouts, microfiche or other information about the SCNS was available?

3.6 N.R. 7.3 Yes, no "Who." 1.0 yes, comment only.

a. 48.2 Yes. Who? (job title) 39.9

b. 48.2 No.

V25 5. Would you like more information about the SCNS products and services?

5.7 N.R. 11.9 yes, no "what." 1.0 yes, comment only.

a. 36.2 Yes. What in particular? 23.3 (14.0 general info about SCNS; 7.0 discipline course list.)

b. 58.1 No.

V26 6. Were you personally responsible for conversion of some university courses from quarter to semester?

0 N.R.

a. 83.4 Yes.

4.7 No, no "who." 0.5 no, some comment.

b. 16.6 No. Who converted the courses you normally teach? (job title) 11.4

V27 7. Were you involved in the conversion of courses for your entire department?

0.5 N.R. 12.4 yes, no "role." 1.0 yes, comment only.

a. 80.3 Yes. Your role was to: 66.9

b. 19.2 No.

8. Indicate as best you can the principal course conversion strategies used in your department (check the most frequently used ones):

3.1 N.R.

V28 a. 73.6 same course, more depth and/or breadth.

V29 b. 64.2 combined parts of two quarter courses.

V30 c. 32.6 new course, with some old material included.

V31 d. 28.0 new course, new subject matter.

V32 e. 63.7 mathematical conversion, e.g., 4 quarter to 3 semester hours.

V33 f. 14.5 mathematical increase, e.g., 4 quarter to 4 semester hours.

V34 g. 8.8 mathematical reduction, e.g., 4 quarter to 2 semester hours.

V35 h. 25.4 reduce number of courses by some fraction, e.g., 1/3, 1/4, 1/5.

V36 i. 11.9 create unique courses unlike those at any other college or university.

V37 j. 19.2 adjust course hours to provide equivalent semester faculty workload.

V38 k. 24.9 add courses for new major or redesigned major.

V39 l. 14.5 other: 7.8 comments; 5.7 5→3 hrs; 5.0 5→4 hrs
0.5 other math

V40 9. Were course numbering products or services used when new semester course numbers were sought?

5.7 N.R.

a. 52.3 Yes.

b. 42.0 No. Go to Question 11.

10. Which products or services were used? (Check any used.)

45.1 N.R.

V41 a. 40.9 course inventory printout.

V42 b. 7.3 microfiche (course equivalency directory).

V43 c. 31.1 discipline taxonomy.

V44 d. 10.9 profiles for classified courses.

V45 e. 17.6 institutional course listing.

V46 f. 0 course information via a computer terminal (Browse routine).

V47 g. 20.2 consulted a course numbering staff person.

V48 h. 1.0 other: 0.5 negative comment

V49 11. Is there someone in your institution who can be called on to provide you with help in selecting an appropriate course number?

7.2 N.R. 5.7 yes, no "title." 2.1 yes, comments.

a. 79.3 Yes. Job title of person: 71.5

b. 13.5 No. Go to Question 13.

V50 12. Have you used the services of this person?

17.6 N.R. 3.1 yes, no freq.

a. 70.0 Yes. (1) 14.5 often; (2) 29.6 sometimes; (3) 22.8 infrequently. [66.9]

b. 12.4 No.

13. Have there been any workshops, training sessions or orientations at your institution for faculty or staff about the:

17.1 N.R.

V51 a. course numbering system? (1) 20.2 Yes. (2) 62.7 No. 17.1 N.R.

V52 b. conversion procedures? (1) 40.4 Yes. (2) 43.6 No. 16.0 N.R.

V53 c. articulation matters? (1) 23.3 Yes. (2) 54.5 No. 22.2 N.R.

14. Have you had any indication that the system of common course numbers:

N.R.

V54 a. reduced the number or courses/hours that transfer students have had to repeat? (1) 17.1 Yes. (2) 77.7 No. 5.2

V55 b. facilitated the admission of transfer students into a departmental major? (1) 28.0 Yes. (2) 66.3 No. 5.7

V56 c. helped transfer students to graduate after four years (or less) of postsecondary education? (1) 14.0 Yes. (2) 76.2 No. 9.8

V57 d. led to more transfer students being prepared like the freshman-sophomore students at the 4-year universities? (1) 13.5 Yes. (2) 77.7 No. 8.8

V58 e. enhanced articulation between community colleges and universities? (1) 30.6 Yes. (2) 62.2 No. 7.2

V59 f. facilitated communication with discipline colleagues at other colleges and universities? (1) 30.6 Yes. (2) 64.8 No. 4.7

15. Do you agree or disagree with these statements about the course numbering system?

N.R.

V60 a. The faculty task forces may have created too many subject matter (alpha) prefixes for most disciplines. (1) 47.2 Agree (2) 39.4 Disagree. 13.5

V61 b. The system has led to delays in the approval of new courses. (1) 44.0 Agree (2) 42.5 Disagree. 13.5

V62 c. It has caused the departments to lose their adacemic identity. (1) 24.9 Agree (2) 64.8 Disagree. 10.4

V63 d. Courses have been equated which are often not really comparable. (1) 68.4 Agree (2) 24.4 Disagree. 7.3

V64 e. It has led to a proliferation of courses. (1) 22.3 Agree (2) 63.2 Disagree. 14.5

V65 f. A wrong number or prefix is often assigned to a course. (1) 36.3 Agree (2) 47.2 Disagree. 16.6

V66 g. The system has caused an increase in paperwork (1) 73.6 Agree (2) 18.1 Disagree. 8.3

V67 h. There is no reason why any two courses should be comparable. (1) 22.3 Agree (2) 67.9 Disagree. 9.8

(more)

N.R.

V68 i. Two courses cannot be comparable if one has a prerequisite and the other does not. 3 (1)50.3Agree. (2)36.8Disagree. 13.0

V69 j. The system has created formalistic course titles which do not really represent the content of any real courses. 4 (1)47.6Agree. (2)37.3Disagree. 15.5

16. Which, in your opinion, is most likely to help a community college transfer student obtain a bachelor's degree in the equivalent of four academic years? (Please rank order, e.g., 7=most helpful).

V70 a._____ Catalogs
V71 b._____ Recruiting literature
V72 c._____ Counseling manuals
V73 d._____ Academic advisement
V74 e._____ Common course numbers
V75 f._____ Common transcripts
V76 g._____ Discipline articulation conferences of faculty

→ (SEE table attached as 5-A)

17. Have the students in your department been informed about the course numbering system so they may use it (the alpha prefixes or taxonomies) in the selection of courses?

V77 a. 8.8 N.R. ~~34.2~~ Yes. 46.2 N.R. 0.5 DK

b. 57.0 No. Should they be informed? (1)20.7Yes. (2)37.1No. [57.8]
V78

18. Are there any other concerns, benefits, or issues which have not been addressed above but about which you would like to comment? Please write these comments below or on another sheet of paper. Your comments are strongly desired and encouraged.

		Faculty		Number of	
		%	%NR	Persons →	Comments
V79	Positive comments	13.0	87.0	25	33
V80	Negative comments	39.4	60.6	86	173
V81	Positive recommendations	7.3	92.7	14	14
V82	Negative recommendations	5.7	94.3	11	12
V83	Info items	17.1	82.9	33	55
V84	Incorrect or "illegal"	10.9	89.1	21	25
V85	Apparent inst'l problems	6.7	93.3	13	17

APPENDIX F

SURVEY OF STATE EDUCATION STAFF OFFICIALS

Contents

1. Survey of State Education Staff Officials-Procedures
2. Probe Questions for State Officials in Tallahassee About the Statewide Course Numbering System
3. State Staff Officials Interviewed

SURVEY OF STATE EDUCATION STAFF OFFICIALS

Procedures

Attached is a list of the state officials interviewed for this survey. The prupose of the survey was to obtain reactions to the long range goals compiled for the evaluation study. The long range goals were taken from the Florida Statutes, Florida Administrative Code and a variety of historical documents; the director of SCNS was also asked and responded to a request for statements of ultimate and long range goals. The principal investigator compiled the goal statements.

The persons selected for interviewing were chosed from the results of a systematic survey by Dr. John Waggaman in February 1981. The survey was conducted to specifically identify those state staff employees who worked with post-secondary education public policy matters or had a substantial knowledge of it. Excluded were the officials, elected or appointed, who were preceived as leaders, rather than staff officials. Of the original 18, 14 participated in a complete interview.

All of the interviews were completed by Ms. Pamela Allen, research assistant for this study. (She is an advanced graduate student in Communications at Florida State University.) Ms. Allen also wrote the report of the interviews, which is contained in the text of the evaluation study report. Several other persons were originally sought out, but were on vacation or effectively unavailable given the press of current affairs. It appears unlikely that the central tendencies in the responses would have been altered markedly had these additional persons been interviewed.

Each interview lasted from 30 to 60 minutes. All interviews took place in the offices of the respondents. Detailed notes were taken by hand. The initial "probe" sheet used by the interviewer appears as Appendix F-2. The interviewer noted but did not report on the personal characteristics of the respondents during the interview. If the credibility and sincerety of each respondent was weighted on a scale of 1-10, the results of the interviews might have had to be presented differently.

JSW

State Officials Survey

Probe Questions for State Officials in Tallahassee About the Statewide Course Numbering System

1. What kind of goals and objectives for SCNS in relation to:
   - a. DOE? Leg.? PEPCO? Ed. budget (Gov)?
   - b. BOR, DCC? Consortia?
   - c. Institutions? CC? U? Vo-tech centers?
2. Are these goals and objectives being achieved?
   - a. y - n
   - b. why? Examples?
3. Who is and should be the primary users of the SCNS products and Services?
   - a. State?
   - b. Higher/postsecondary offices (State)?
   - c. Institutions?
4. Problems in making the System work?
   - a. Staff?
   - b. Resources?
   - c. Support by __________?
   - d. Semester conversion?
   - e. Vo-tech assignment?
   - f. Task forces?
   - g. Policy council?
5. Any benefits from SCNS not previously mentioned?

APPENDIX F-3

State Staff Officials
Interviewed About the Goals of the Statewide Course Numbering System
Summer 1981

Dr. Frederick Atherton, Administrator, Council Coordination and Program Management, Program Support and Services, Division of Community Colleges, DOE.

Ms. Barbara Cohen, Higher Education Analyst, Senate Education Committee.*

Ms. Linda Collins, Education-Governmental Analyst III, Governor's Budget and Planning Office

Mr. William Corley, Senior Analyst, Florida Senate Ways and Means Committee

Dr. Thomas Furlong, Assistant Executive Director, Post-secondary Education Planning Commission

Dr. Philip Goldhagen, Director of Special Projects, Florida Department of Education

Dr. Harold Kastner, Assistant Director, Division of Community Colleges, DOE

Mr. David Lycan, Chief Analyst, Education Sub-committee of House Appropriations Committee

Mr. James Morgan, Director of Management Information Services, Board of Regents

Mr. Herman Myers, Staff Director, Senate Education Committee

Dr. William Odom, Budget Analyst, Senate Ways and Means Committee

Dr. Paul Parker, Associate Vice Chancellor for Academic Programs, Board of Regents

Mr. Harry Rudy, Director or Bureau of Cost Studies and Management Information Services, Division of Community Colleges, DOE

Dr. William Shade, Staff Director, House Higher Education Committee

Dr. Jack Tebo, Coordinator for Higher Education, Budget and Planning, Department of Education

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*Only partially interviewed.

Mr. Francis Watson, Coordinator for Management Information Services, Division of Vocational Education, DOE

Dr. William Wharton, Director of Academic Program Review and Development, Board of Regents